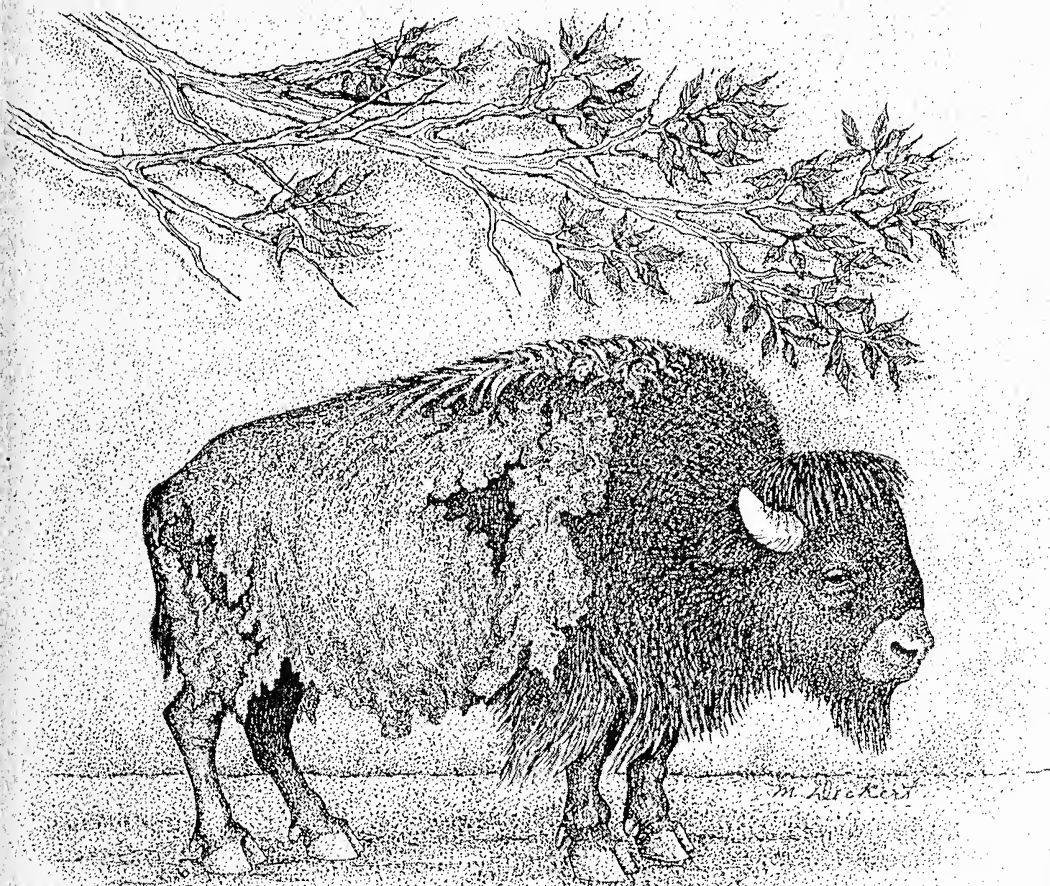


ANIMAL KEEPERS' FORUM



The Journal of the American
Association of Zoo Keepers, Inc.

JANUARY 2005

ANIMAL KEEPERS' FORUM, 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054
Phone: 1-800-242-4519 (U.S.) 1-800-468-1966 (Canada) FAX (785) 273-1980

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Managing Editor: Susan D. Chan • **Associate Editors:** Kayla Grams, Grand Junction, CO & Mark de Denus, Reid Park Zoo • **Enrichment Options Coordinators:** Dawn Neptune, Utah's Hogle Zoo & Rachel Cantrell, Disney's Animal Kingdom • **Legislative/Conservation Outlook Column Coordinator:** Georgann B. Johnston, Sacramento, CA. • **ABC's Column Coordinator:** Diana Guerrero, Big Bear Lake, CA • **Reactions Column Coordinator:** William K. Baker, Jr., Little Rock Zoo

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also serves as AAZK Liaison to the American Zoo & Aquarium Association (AZA)

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AAZK Enrichment Notebook 3rd Edition - Lee Houts, Folsom City Zoo

Resources for Crisis Management in Zoo & Other Animal Care Facilities - Susan D. Chan, Topeka, KS



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30th Anniversary
1974 - 2004

About the Cover.....

This month's cover features the American bison (*Bison bison*) drawn by Mary Deckert, a Docent at the Los Angeles Zoo, Los Angeles, CA. The American bison is the largest land animal in North America. Males can stand six feet from hoof to shoulder and weigh between 1000-2000 pounds. Females are around five feet tall and weigh between 800-1000 pounds. Bison have long shaggy brown fur, a mane and beard under their chin and a long tail with a tuft of hair at the end. They have big heads with short black horns and a hump on their shoulders. The American bison once was found in most of Canada, the U.S. and parts of Mexico. Wild populations are now limited to national parks and refuges. Female bison are ready to mate when they are two to three years old. Males aren't ready to mate until they are about six. Mature males and females usually live apart except during breeding season. Each bison group has a dominant male or female. Mating season begins in July and can run through September. Females give birth to one calf after about nine months. The calves are usually weaned by the time they are seven months old. A grazer, the bison's diet is made up of mostly grasses and sedges. They will occasionally eat berries and lichen. In winter, the bison uses its head and hooves to move snow off the vegetation. The American bison is an endangered species. Thanks, Mary!

Animal Keepers' Forum publishes original papers and news items of interest to the animal keeping profession. Non-members are welcome to submit articles for consideration. Articles should be typed or hand-printed and double-spaced. Authors are encouraged to submit their manuscripts on a disk as well as in hard copy form. Manuscripts submitted either on disk or electronically as attachments to an email should be submitted in Microsoft WORD. All illustrations, graphs, charts and tables should be clearly marked, in final form and should fit in a page size **no greater than** 5.5" x 8.5" (14cm x 22cm). Literature used should be cited in the text (Brown, 1986) and alphabetically in the final bibliography. Avoid footnotes. Include scientific name (as per ISIS) the first time an animal name is used. Thereafter use common name. Use metric system for weights and measurements (standard equivalents may be noted in parenthesis). Use the continental dating system (day-month-year). Times should be listed as per the 24-hour clock (0800, 1630 hrs. etc.). Glossy black and white **or** color prints (minimum size 3" x 5" [8cm x 14cm]) are accepted. Clearly marked captions should accompany photos. Please list photo credit on back of photo. Photographs may be submitted electronically as either JPEG or TIFF file attachments.

Articles sent to *Animal Keepers' Forum* will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for *AKE*. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 1-800-242-4519 (US); 1-800-468-1966 (Canada); FAX (785) 273-1980; email is akfeditor@zk.kscoxml.com<

Deadline for each regular issue is the 10th of the preceding month.

Dedicated issues may have separate deadline dates and will be noted by the editor.

Articles printed do not necessarily reflect the opinions of the *AKE* staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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E-Mail Addresses: You may reach Barbara Manspeaker at AAZK Administrative Offices at: aazkoffice@zk.kscoxml.com< You may reach Susan Chan and *Animal Keepers' Forum* at: akfeditor@zk.kscoxml.com<

AAZK Website Address: www.aazk.org

BFR Website: <http://bfr.aazk.org>

Scoops & Scuttlebutt



Recharter Packets in the Mail

All Chapter officers are reminded that annual Recharter Packets have been mailed and must be returned to AAZK Administrative Offices **by 1 March 2005** to avoid paying the \$100 late fee. If you have questions about filling out your forms, contact Barbara Manspeaker at 1-800-242-4519 (U.S.) or 1-800-468-1966 (Canada). You can also reach Barbara via email at aazkoffice@zk.kscoxmail.com. Make certain when you return your packets that you have completed all required information and have included a check for your recharter fee. Make a copy for your Chapter's records. Return of these forms is part of the Association's obligation to the Internal Revenue Service under our 501(c)(3) nonprofit tax-exempt status. Failure to have forms returned by all of AAZK's chartered Chapters puts the organization's tax-exempt status in jeopardy, so your full cooperation is greatly appreciated. If you do not have a packet by **1 February 2005**, contact Barbara immediately. Packets are sent to the Chapter President at the address listed on the Chapter's most recent recharter forms.

AAZK Committee News

The **International Outreach Committee** is pleased to announce Norah Farnham of Woodland Park Zoo will be representing the Association as a member of the Steering Committee of the International Congress of Zookeepers.

The **Marketing Committee** is pleased to announce Kristen Wolfe of Disney's Animal Kingdom has been selected as Chairperson of the committee.

The **Professional Development Committee** is looking for members and a new chairperson. If you are interested, please contact Shane Good at sjg@clevelandmetroparks.com or 216-661-6500. The role of this committee is to assist in the coordination of the Advances in Animal Care for Zoos and Aquariums course and to develop seminars and training modules for the continuing education of professional zoo keepers.

Enrichment Conference Call for Papers

The 7th International Conference on Environmental Enrichment (31 July - 5 August 2005) seeks high quality, original, unpublished submissions for papers and posters to be presented on the subject of environmental enrichment and animal welfare. Researchers and animal care professionals from all related disciplines are encouraged to submit papers for consideration. These may be in the form of original (unpublished) research results, case studies or scientific reviews. Please visit the ICEE2005 website for complete information: <http://www.wcs.org/icee2005> In particular, we are seeking papers covering areas including, but not limited to:

- * Enrichment in zoos, aquariums, farms, laboratories & animal shelters
- * Enrichment & sensory systems
- * Meeting cognitive needs
- * New innovations in enrichment
- * Enhancing animal welfare
- * Providing choice & control
- * Assessing animal welfare
- * Assessing enrichment effectiveness
- * Enrichment & stress
- * Implementing enrichment programs
- * Enrichment challenges
- * Enclosure design
- * Enrichment case studies (esp. reptiles, amphibians & fish)
- * Husbandry training

Deadline for receipt of paper and poster submissions is **15 February 2005**. Questions? Contact us at icee2005@wcs.org Randi Winter Manager, Project Development / Living Institutions Wildlife Conservation Society (718)220-6822 rwinter@wcs.org 2300 Southern Blvd. Bronx, NY 10460>

AAZK Grant Programs

AAZK has several grants available, including Conservation, Restoration & Preservation (CPR), Research, Geraldine Meyer/AAZK Travel Grant, and the AAZK Grant for the Advances In Animal Keeping Course offered in conjunction with AZA. For further information check the AAZK website or contact Jan Reed-Smith at jrsotter@iserv.net< Deadlines for application are listed below.

The Geraldine Meyer/AAZK Professional Travel Grants

A total of \$2,000.00 is available annually. Grants are awarded twice a year, in May and November. Applications, from new and experienced keepers, are evaluated on their merit based on the member's submission of all requested materials. Awards may range from \$1,000.00 to \$250.00 or less depending on need. Applicants are encouraged to solicit additional funds from their institution or other sources. Applicants with other committed funds, or in-kind support (time off) will receive slight priority but all applications are encouraged.

Applications for mid-year consideration are **due by February 1** of the calendar year; applications for end of the year consideration are due by July 1 of the calendar year. Money will be available upon notice to the recipient. Winners are required to submit an article to the Forum on the workshop or research they participated in.

Deadlines for the AAZK Grants

AAZK-Geraldine Meyer Professional Travel Grant

2 Grants available at:	\$1000.00 each	
Application Deadline:	February 1	(mid-year consideration)
Application Deadline:	July 1	(end of the year consideration)

AAZK/AZA Advances in Animal Keeping Course Grant

1 Grant available at:	\$1000.00	
Application Deadline:	July 1	(of the year before the actual class)

Conservation, Preservation and Restoration Grant

1 Grant available at:	\$1000.00	(or split between several small projects)
Application Deadline:	June 1	(of the year before the actual project)

Research Grant

2 Grants available at:	\$1000.00	(or split between several small projects)
Application Deadline:	June 1	(of the year before the actual project)

2004 Index Thank You

The index for the 2004 issues of *Animal Keepers' Forum* appears at the end of this issue. Thanks go out to Associate Editor Kayla Grams (USGS, Grand Junction, CO) for putting together the index which provides readers with an easy way to find articles published over the past 12 months. Thanks, Kayla!

MOVING?

Please let us know when you change your address! It now costs AAZK about \$1.00 every time an *AKF* is returned because of an incorrect address. We have more important things to spend the Association's money on! Please call 1-800-242-4519 (U.S.) or 1-800-468-1966 (Canada). If you should get the answering machine, please speak slowly and clearly when giving your address change. Or you may email your address changes to: aazkoffice@zk.kscoxmail.com< Thanks!

Coming Events

Fifth Zoos & Aquariums: Committing to Conservation - 26-30 January 2005 in Cocoa Beach, FL. Hosted by the Brevard Zoo. This conference will continue to examine and promote the role of zoos and aquaria in supporting *in situ* field research and conservation. Will include keynote speakers, paper sessions, posters. Will be preceded by one-day workshop on North American Conservation Initiatives. For further information please contact Cheri Purnell at (321) 254-9453 ext. 25 or email her at membership@brevardzoo.org

ClickerExpo - 28-30 January 2005 in San Diego, CA. Three days and 40 sessions on operant conditioning and positive reinforcement. Faculty includes Karen Pryor, Thad Lacinak, Ken Ramirez, Kay Laurence, Kathy Sdao and more. In-depth training for all levels of skill, applicable to many species, including: clicker training for medical care; for aggression; using cues as reinforcers; shaping behavior at a distance; developing directional and compound cues; chaining; making training plans; and teaching others. Also current related research. A great resource and learning experience for zoo staffers. To see details or register at www.clickerexpo.com or call 781-784-5354 for more information.

International Association of Avian Trainers and Educators Annual Conference - 9-12 February 2005 in Atlanta, GA. Hosted by Zoo Atlanta. For more information visit <http://www.iaate.org>

ABWAK Symposium 2005 - 5-6 March 2005 at Dudley Zoological Gardens. The 2005 Symposium will focus on: "Zoos - Theory & Practice" and include a range of presentations and workshops covering topics such as: nutrition; conservation (including EAZA Shellshock Campaign); public presentations/keeper talks; interpretation; enrichment and training. ABWAK members benefit from reduced fees; there is also a discount for early booking (before 15th January). Members early fee £30, Non-members early fee £35. To register/book for the symposium contact: Laura Gardner, ABWAK Hon. Secretary, Leeds Castle Aviary, Leeds Castle, Maidstone, Kent, ME17 1PL, UK. Information on Dudley and special accommodation deal is available from Stephen Woollard at education@dudleyzoo.org.uk

The National Wildlife Rehabilitators Association Presents Symposium 2005 "Working Together for Wildlife" - 8-12 March 2005 in Minneapolis, MN., at the Marriott Minneapolis Southwest. Hosted by the Minnesota Wildlife Assistance Cooperative. For further info contact: NWRA Central Office, 14 7th Avenue North, St. Cloud, MN 56303, (320) 259-4086, e-mail nwra@nwrwildlife.org website: <http://www.nwrawildlife.org>

From Darwin to Dawkins: The Science and Implications of Animal Sentience - 17-18 March 2005 at the Queen Elizabeth II Conference Centre, London, UK. Keynote speaker is Dr. Jane Goodall DBE, Jane Goodall Institute. Hosted by Compassion

in World Farming Trust. More information and registration is available online at www.ciwf.org/conference2005

Fourth Sea Otter Conservation Workshop - 18-20 March 2005 hosted by Seattle Aquarium, Seattle, WA. Three days of papers, reports and discussion about all aspects of sea otter biology and conservation. Anyone working with sea otters in any capacity is invited to come. Pre-registration is required; discount for early registration (deadline **18 Feb. 2005**). Pre-registration until **11 March 2005**. Info, registration and/or questions contact Dr. Shawn Larson at shawn.larson@seattlec.gov

The 5th Animal Behavior Management Alliance Conference - 10-15 April 2005 in Houston, TX. Hosted by the Houston Zoo. For more info visit www.thcabma.org

Fourth Rhino Keepers' Workshop - 5-9 May, 2005 in Columbus, OH. For further information contact Adam.felts@columbuszoo.org

Fifth World Congress of Herpetology - 20-24 June, 2005 at Conservatorium for Music, Stellenbosch University Campus, Stellenbosch, South Africa. Please visit the website <http://www.wits.ac.za/haa/> or contact the organizer at conf@conferencesetl.co.za Dr. Ernst HW Baard Manager: Scientific Services Western Cape Nature Conservation Board, Private Bag 5014 7599, STELLENBOSCH; Tel: +27-21-866 8001; Fax: +27-21-866 1523; Mobile: 082-41 40 424; Scientific Services office no. +27-21-866 8000. Visit our website: <http://www.capenature.org.za>

7th International Conference on Environmental Enrichment - 31 July - 5 August, 2005, hosted by the Wildlife Conservation Society in New York City, NY. Registration fee is US \$250. Conference site is Columbia University, with day trips to Central Park Zoo and the Bronx Zoo. Housing arrangements have been made for Columbia dorm rooms, starting at \$45 per person, double occupancy. The theme is "Unifying the Art and Science of Animal Enrichment". Please visit wcs.org/icee2005 for more information on submitting papers and registering for the conference. Please contact icee2005@wcs.org if you have any questions.

32nd AAZK National Conference - 28 August - 1 September 2005. Hosted by the Audubon AAZK Chapter and the Audubon Nature Institute. Watch *AKF* in the coming months for more information.

Second International Congress of Zookeeping (ICZ) - May 2006 in Gold Coast, Queensland, Australia. Visit website: <http://www.iczoo.org> for latest information. See information on First Call for Papers in the November 2004 issue of *AKF*.

Post Your Coming Event Here - email to:
akfeditor@zk.skcoxmail.com

From the Executive Director

As members of this Association, have you ever wondered to yourself, "What can I do for my Association?" It is actually very simple and relatively painless. Make an appointment with your facility director, catch them while they're out and about making the rounds, or just walk in their door (whatever is most appropriate) and simply ask them why your facility is not an Institutional Member of AAZK.

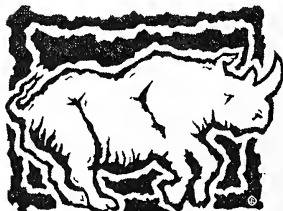
Of course, you will want to check first and make sure your facility is not already an AAZK Institutional Member, but chances are your place of work is not, because out of 200+ AZA-accredited facilities, only about 10 are AAZK Institutional Members. Yes, you heard me correctly, less than 10% of AZA facilities are AAZK Institutional Members.

To be fair, many, many facility directors, managers and curators are great supporters of AAZK, holding membership in the Contributing category of AAZK membership. They are to be congratulated for their many years of support for your profession.

What better way for your facility to show true support for the animal keeping profession than to become an AAZK Institutional Member. In last month's column I alluded to the power of the Chapter dollar and what we could do with a \$500.00 donation from each of the 80 AAZK Chapters. Now, on top of that, add the support of just the parent institutions of those 80 AAZK Chapters contributing \$125.00 each, in direct support of their staff. But I firmly believe that in these times, with the continuing education and husbandry information AAZK provides, every AZA facility should be an AAZK Institutional Member.

Even if you don't have a Chapter at your facility, encourage your director to support and educate their staff.

You won't believe how much it will help.



AMERICAN
ASSOCIATION
of ZOO KEEPERS

Ed Hansen, Executive Director
Tucson, AZ

AAZK Award Nominations Are Now Being Accepted for 2005

The AAZK Awards Committee is accepting nominations for the **Jean M. Hromadka Excellence in Zookeeping Award (EZ)** **The Certificate of Merit for Zoo Keeper Education (CMZE)**, and **The Certificate of Excellence in Exhibit Renovation (CEER)** to be presented at the 2005 AAZK Conference in New Orleans, LA. The deadline for all award nominations is **1 June 2005**. Information concerning the qualifications, nomination procedure, selection procedure and an explanation of the awards may be obtained by contacting Janet McCoy, Chair, AAZK Awards Committee, Oregon Zoo, 4001 S.W. Canyon Rd., Portland, OR 97221; email - mccoyj@metro.dst.or.us

Jean M. Hromadka AAZK Excellence in Zookeeping (EZ) Award

The American Association of Zoo Keepers, Inc. (AAZK) is the administering organization of the Jean M. Hromadka Excellence in Zookeeping Award presented by the AAZK Awards Committee. The purpose of the award is to recognize achievement and determination of an individual in the zookeeping field and in fostering professionalism. Zookeeping is a science combining zoology, biology, animal management, behavioral observation and daily record keeping on the collection of species in their care. This is essential knowledge for maintaining a species effectively in captivity. The excellent zookeeper must excel in one or more of these areas, but not be lacking in any of them.

The Excellence in Zookeeping Award was founded by John Siegel, 1974-1975 CHAIR, in 1974. The original name of the award was the Marlin Perkins Award, named after the famed zoologist who started his career as a zookeeper. The name was changed in 1978 to the EZ award. In 1990, the name was changed to the Jean M. Hromadka Excellence in Zookeeping Award in memory of her outstanding contributions to the furtherance of AAZK through committee work and as President. The award is presented at the annual AAZK National Conference.

Qualifications:

1. The nominee **must** be a full-time animal keeper, employed in any North American zoological institution, aquarium or related facility for at least five years.
2. The nominee **must** have been employed at least two years on permanent status at the same zoo, aquarium or related facility.
3. The nominee **must** be nominated by his or her peers who have also been employed at that same zoo, aquarium or related facility. Supporting nominations may be submitted by management personnel from the same institution.

Nomination Procedure:

1. List name, position, institution's name, address, phone and Director, years of service in the field and the recommendation of peers or colleagues.
2. List and **document** commitment to the profession, outstanding achievements, practical/outstanding application of knowledge and experience, and keeper skills, etc.

Verification of these facts must be signed by the zoo director, curator, or immediate supervisor of the individual being nominated.

3. List any extra activities outside of zoo, aquarium or related facility work: working with conservation groups, youth, wildlife officials, etc.
4. Deadline for nominations is **JUNE 1st** of each year.

Selection Procedure:

The Awards Committee, consisting of five keepers, will independently review each nominee.

Certificate of Merit for Zookeeper Education (CMZE)

The American Association of Zoo Keepers, Inc. (AAZK) is the administering organization of the Certificate of Merit for Zookeeper Education (CMZE) presented by the AAZK Awards Committee. The purpose of the award is to recognize individuals, institutions and organizations in the zoological community most actively promoting educational programs for zookeepers. Examples of such support are: reimbursements for formal education, keeper training courses and staff seminars.

The CMZE was founded by Jeff Roberts, 1976-1978 CHAIR, in 1978, to compliment the work of the AAZK Education Committee that had been formed at that time. The award is presented at the annual AAZK National Conference.

Qualifications:

1. Any staff individual, institution or organization from a North American zoo, aquarium or related facility is eligible.
2. The keeper training program must have been in existence for at least one year.

Nomination Procedure:

1. If you feel that your institution, organization or a staff individual merits such an award, please submit a letter of nomination which mentions specifically the educational programs that are offered.
2. Claims made should be backed up with documentation for the committee to review.
3. List the institution or organization's name, address, phone and Director.
4. The deadline for nominations is JUNE 1st of each year.

Selection Procedure: The Awards Committee, consisting of five keepers, will independently review each nominee.

Certificate of Excellence in Exhibit Design Renovation (CEER)

The American Association of Zoo Keepers, Inc. (AAZK) is the administering organization of the Certificate of Excellence in Exhibit Renovation (CEER) presented by the AAZK Awards Committee. The purpose of the award is to recognize institutions or organizations in the zoological community for the design and renovation of existing animal facilities which involved active keeper participation in the process.

The CEER was established by Janet McCoy, 1990 CHAIR. Bill Whittaker proposed the award to the AAZK Board of Directors. The award is presented at the annual AAZK National Conference.

Qualifications:

1. Any North American zoological institution or organization is eligible.
2. The renovated exhibit must be in full operation for at least two years.
3. The exhibit must be nominated by a keeper at that same institution or organization. Supporting nominations may be submitted by management personnel from the same institution.

Nomination Procedure:

1. List institution or organization's name, address, phone and Director.
2. **Document** local awards or commendations for exhibit, drawings, 8 X 10 color photos - no slides (2 before and 8 after), and renovated exhibit type: single or multispecies, and size.
3. **Document** keeper participation in the design and why the existing facility was renovated.
4. **Document** interface with other zoo divisions; and maintenance of exhibit after completion.
5. The deadline for nominations is **JUNE 1st** of each year.

NOTE: Materials will not be returned.

Selection Procedure: The Awards Committee, consisting of five keepers, will independently review each nominee.

Nominee Evaluation:

The evaluation of each nomination is broken down into four categories based on the general guidelines outlined for the award. The four categories are: Keeper Involvement, Exhibit Functionality, Exhibit Management and Visitor Point of View/ Other Information. Items the committee is looking for are the following:

A. KEEPER INVOLVEMENT:

- a) degree of keeper involvement with conceptual development of exhibit
- b) degree of keeper involvement with facilitation of completion of exhibit, (fund raising, promotion, assist with construction)
- c) contribution to educational experience (graphics, conservation message)
- d) originality - is it something new and different, or has it been tried before

B. EXHIBIT FUNCTIONALITY:

- a) versatility - indoor/outdoor, four seasons, protection from elements
- b) accommodates and encourages animal's natural behavior - climbing structures, land area, height, water
- c) hard (gunite, concrete) vs soft (grass, dirt) environments - as to animal needs
- d) sight lines valuable to animal as well as visitor - important to some animals (polar bear, chimps)
- e) physical and visual barriers for animal's use, animal safety
- f) flexible entrance/exits (hoofstock - more than one entrance)
- g) ability to exhibit natural social grouping
- h) breeding success

C. EXHIBIT MANAGEMENT:

- a) how management of exhibit interfaces with other zoo divisions (grounds, maintenance - simple repair, paint)
- b) keeper serviceability, overall maintenance of exhibit and surroundings
- c) adequate drains and properly located
- d) quality and versatility of holding areas - ease of separating animals, moving, breeding, sick

- e) keeper sight lines - can you see animal when they come into holding or when shifting them between areas, keeper safety
- f) ease of providing time change items (browse, logs, feed, novel objects)
- g) environmental control (ease of seasonal adjustments - ventilation, heat)

D. VISITOR POINT OF VIEW/OTHER INFORMATION:

- a) educational experience (conservation message)
- b) immediate and sustained viewer interest
- c) sight lines - not see doors, drains, fencing - does it have esthetics
- d) bonus point - local awards, commendation, "wow" factor
- e) include anything else pertinent to the renovated exhibit that you think is important

The character of the awards includes either a plaque or certificate, letter of notification to the institution's director and national recognition by professional journals. Such journals include: the American Zoo and Aquarium Association (AZA) and the Canadian Association of Zoological Parks and Aquarium (CAZA) Newsletters, Animal Keepers' Forum (AAZK), Awards, Honors and Prizes: Volume 1; United States and Canada. The latter is published by Gale Research Company based in Wheaton, MD and found in medium to large sized libraries across the U.S. and Canada.

Award Nominations should be submitted to:

Janet McCoy, Awards Chair

The Oregon Zoo, 4001 SW Canyon Road, Portland, OR 97221

Next month we will include information on making nominations for the Lifetime Achievement Award, the Meritorious Achievement Award, and the Environmental Enrichment (EE) Award

Deadline for Nominations is 1 June 2005

MOVING?

Please let us know when you change your address! It now costs AAZK 99 cents every time an *AKF* is returned because of an incorrect address. Call 1-800-242-4519 (U.S.) or 1-800-468-1966 (Canada). If you should get the answering machine, please speak slowly and clearly when giving an address change. Or you may e-mail address changes to: aazkoffice@zk.kscoxml.com

THANKS !

AAZK Announces New Members

New Professional Members

Bunny Watson, **Museum of Science (MA)**; Sara Hallager, **National Zoo (DC)**; Sara Floyd, **Riverbanks Zoo & Garden (SC)**; Adrienne Sato, **Disney's Animal Kingdom (FL)**; Ann Duffy, **Busch Gardens (FL)**; Mark Weldon, **Ft. Wayne Children's Zoo (IN)**; Heather Neldner, **Milwaukee County Zoo (WI)**; Michelle Noga, **Brookfield Zoo (IL)**; Abbie Stewart, **Sedgwick County Zoo (KS)**; Travis Wickersham, **Riverside Zoo (NE)**; Gretchen Jeff, **Audubon Nature Institute (LA)**; Erica Malmberg, **Dallas Zoo (TX)**; Jennifer Byram, **Arizona-Sonora Desert Museum (AZ)**; Eva Thoresen, **San Francisco Zoo (CA)**; Stephanie Payne, **Woodland Park Zoo (WA)**; Edward Loyst, **Indian River Reptile Zoo (Ontario, Canada)**; and Kevin Bowen, **Mountain View Conservation & Breeding Center (British Columbia, Canada)**.

New Institutional Member

J. Otto Lottes Health Science Library
University of Missouri, Columbia, MO

Renewing Institutional Members

Santa Fe Community College Teaching Zoo
Gainesville, FL
Jack Brown, Director

Michigan State University Library
East Lansing, MI

Serials Dept. - Ellis Library
University of Missouri, Columbia, MO

Dickerson Park Zoo
Springfield, MO
Mike Crocker, Director

Rainforest & Aquarium at Moody Gardens
Galveston, TX
Mike Riley, President

Tautphaus Park Zoo
Idaho Falls, ID
William R. Gersonde, Director

Chaffee Zoological Gardens of Fresno
Fresno, CA
Steven Wiley, Interim Director

(PLEASE NOTE: If you joined or renewed via the AAZK website and used PayPal, please be aware that we do not receive your zoo affiliation information from PayPal, only your mailing address. If you want your zoo listed with your name when it is published in AKF, please contact our office after you join/renew online to advise us of this information. Call 1-800-242-4519 (US) or 1-800-468-1966 (Canada); or email at aazkoffice@zk.kscoxmail.com< Thank you.)

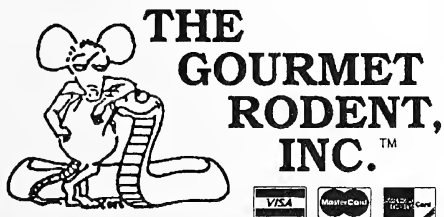
Block These Dates! 7-11 May 2006



The Australasian Society of Zoo Keeping (ASZK) wishes to invite you to the **2nd International Congress on Zookeeping (ICZ)** to be held on the **Gold Coast, Queensland, Australia**.

Hosted by ASZK in conjunction with the following Zoo Keeper Associations: ABWAK, (Britain), AAZK, (America), AICAS, (Spain), AFSA, (France), BdZ, (Germany) and De Harpij, (The Netherlands), further information can be obtained by visiting <http://www.iczoo.org> or to receive regular updates subscribe to ICZ_News-subscribe@yahoo.com or write to ICZ Conference Convenor c/o ASZK, P.O. Box 248, Healesville Vic, AUSTRALIA 3777.

Look forward to seeing you there!!



RATS AND MICE

Bill & Marcia Brant

6115 SW 137th Ave., Archer, FL 32618

(352) 495-9024

FAX: (352) 495-9781

e-mail: GrmtRodent@aol.com

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AAZK Animal Training Committee

Don't Shoot the Keeper:

A Practical Guide to Training Your Co-workers

By:

Jay Pratte, ATC Member and Giant Panda Keeper, Zoo Atlanta

&

Angela Binney, ATC Co-chair and Animal Keeper, Disney's Animal Kingdom

Operant conditioning seems to be, more or less, a permanent fixture in our field, and proves to be useful everyday in a myriad of forms when we're working with our animal charges. And like everything else in life, each of us enjoys and understands training at different levels. So how does one address a situation in the workplace when a need for conditioning is proposed, yet met with resistance, concerns, or apathy from teammates? Karen Pryor, in her book "Don't Shoot the Dog" (1985), elaborates on the many uses for operant conditioning, including behavioral shaping of human primates. Let's explore some conditioning techniques to address common "people hurdles", or undesirable behaviors that are counterproductive to animal training progress.

Behavioral shaping involves small approximations that lead to a bigger goal. Each tendency or indication that the subject is moving in the desired direction of change should be reinforced. This concept works as well with human primates, just as it does with our animals. It's a matter of outlining behavioral goals and working one step at a time to meet these goals. In other words, take baby steps, be patient, and reinforce any hint of positive change. You're probably thinking, "How can I reinforce something that never happens?" Below are a few ideas that may encourage a 'training resistant' person to exhibit more desirable behaviors such as: tolerance, approval, affording time or materials, or even participation!

"Why do we need to train? It's always been done this way." We've all heard these frustrating comments. However, we need to remember that things were not always as they are now, with the field of zoo keeping developing rapidly. Many teammates who seem averse to new ideas like "training" or "enrichment" possess a plethora of knowledge and skills, acquired through years of successful animal care. Try to remember, in all the excitement of initiating a training program, that everyone sees things differently, and to respect your co-workers' abilities. That said, search out brief, yet interesting, articles or pictures of how training has accomplished something amazing somewhere else, and leave them for others to "notice". Involve long-term keepers at initial stages by utilizing their skills. Ask them about individual animals' histories and behaviors and use this information in developing your plan. Request assistance in building tools (like targets or platforms), and positively reinforce any interest or cooperation. Remember that a reward is something THEY appreciate: thanks, candy, cleaning out the microwave, frosty beverages... Communicate often, and perhaps choose a simple behavior, train it with your animal subject, and then demonstrate a means in which it is beneficial to everyone. For example, you might target train an obstinate ungulate to follow a target into night holding. Then politely demonstrate how much easier it is than the current process of getting three co-workers with bully boards to come help bring it in every night.

"We have no time to train." This may mean the new trainer must do more work at first. Develop ways to squeeze in training sessions at odd times: 10 minutes in the chute while shifting, five minutes after coffee break, that sort of thing. Training sessions do not have to be half hour sit-downs at a specific time every day. Free up a bit of a co-worker's time so that they don't feel rushed or pressured.

Is it possible to cut up the diet for them the day before? Can some cleaning job be done for them? Look for options, and work to remove time constraints and perhaps the accompanying arguments. Eventually, co-workers will see the benefits, and hopefully join in the time management effort. And remember, reward the desired behaviors from staff!

"I have no interest in training." Apathy can be tough to deal with, but first working to remove any perceived added burden would hopefully negate resistance. Subtle education about the tangible benefits of operant conditioning may alleviate apathy. If it doesn't, perhaps work with their interests and develop a trade agreement. "I'll help you research your Macaque project if you ask the animals to stop on the scale as they shift out." Some lack of interest may stem from negative associations with training or misunderstanding of training concepts. The education and demonstration piece may help stir some interest. Perhaps see if they are more interested in other aspects of daily care, like enrichment or even record keeping, and let them do more of that while you train, so everything gets done. However, interest must be developed prior to achieving active participation. Forcing a person to train or to take on other responsibilities probably won't result in success for the program, or the animals. Be flexible and work with each co-worker's "life history".

"Our manager/vet won't support a training program." Manager endorsement is essential because they manage work time and resources. Some tactics used have been the subtle education strategy, which might even evolve into a friendly rivalry type of situation. "What? Their bears stand on their heads and let blood be drawn from their toes? Why, ours could do that in a second!" Managers and vets are proud of their staff and facilities' accomplishments, and perhaps illustrating potential recognition in the field might encourage cooperation. Research the behaviors that would prove useful to animals and staff, providing examples of where they are used successfully. Finding success stories is not difficult with all of the papers and listservs that abound. When presented with potential benefits, and a well-thought-out plan, most managers/vets would be sorely pressed to maintain resistance. Be prepared and ready to answer questions that arise.

These are just a few ideas to assist in some common workplace scenarios. They are by no means the be all and end all guide to "training" co-workers. But by utilizing these ideas as a starting point, being adaptive, and ensuring proper communication, eventually any difficult situation can be overcome. Keep the goals in mind, and reward everyone (staff, animals and YOURSELF). Hopefully then the urge to "shoot the keeper" will be long gone.

Reference

Pryor, K. (1985). *Don't Shoot the Dog! The New Art of Teaching and Training*. New York, NY. Bantam Books.

This is a column entry for the AAZK, Inc. Animal Training Committee. For more information about animal training resources, visit our WebPages at aazk.org.

Assistance Request

The local zoo in Mexico is very poor as regards to environmental enrichment. I was wondering if anyone had any ideas for me to improve the enclosures of the animals. Most animals have very little space with concrete floors & no vegetation. Please email me on: shonamgoulding@yahoo.co.uk
Any help will be much appreciated.

Shona M. Goulding
Calle 61#9 x 26 y 26a
Col. Revolucion
C.P. 24120
Cd. Del Carmen
Campeche - Mexico

2004 AAZK's BOWLING FOR RHINOS - sponsored by Blue Rhino®

By Patty Pearthree

National Coordinator, AAZK's Bowling For Rhinos



Introduction

The American Association of Zoo Keepers (AAZK) "Bowling For Rhinos" (BFR) fundraiser has raised over **\$2.1 million** since 1990 entirely through volunteer efforts. It is the hard work and dedication of these volunteers that will make the difference in wildlife conservation efforts. Everyone should be proud to have taken part in such a successful program.

One hundred percent of all donated funds go directly to three rhino conservation organizations. The first is Lewa Wildlife Conservancy (LWC) in Kenya, which has grown to 62,000 acres protected with a two-meter tall electric fence that is home to 39 black and 34 white rhino (8/12/04). In addition, Lewa has access to use 15,000 acres of Government land called the Ngare Ndare Forest. In 1994, AAZK expanded its funding efforts to include Ujung Kulon National Park in Java, Indonesia which is home to the last 47 Javan rhinos on earth (with a few discovered in Viet Nam). AAZK expanded its funding efforts once again in 1997 to include Bukit Barisan Selatan National Park (BBS) in Sumatra, Indonesia where one of the largest populations of Sumatran rhinos live. There is now an Indonesian Rhino Conservation Program that includes all parks with rhino populations and BFR has become part of this program. All these efforts also protect unique ecosystems enabling the conservation of hundreds of endangered plants and animals.

2003 BFR Results

44 Chapters or institutions turned in money in 2003 for a **total of \$ 188,642.81**. This is \$ 30,000 more than the previous year. The first \$100,000 was sent to Lewa Wildlife Conservancy in 2004; \$44,321.41 was sent to Ujung Kulon National Park and \$44,321.40 was sent to BBS in 2004 from the 2003 event.

2004 BFR to Date

44 Chapters or institutions have stated they would hold an event in 2004. As of 12 September, 2004, 32 Chapters or institutions had turned in money for a total of \$180,474. I estimate the total to be \$220,000 when all money is turned in for 2004.

BFR 2004 Top Individual Money Raisers

Thanks to everyone for the outstanding effort this year! Here are the top 10 individual fundraisers:

Name	AAZK Chapter	Comments	Total Raised
Todd Bridgewater	Oklahoma city	Wins LWC Safari (record amount)	\$17,680
Michelle Pratt	Detroit	Wins LWC Safari	\$13,435
Bethany Lutz	Utah's Hogel zoo	Wins Indonesia trip	\$12,000
Mike Connolly	Tulsa	Wins Indonesia trip	\$ 6,000
Sarah Chartier	Atlanta		\$ 4,503
Rana Bayrakci	Puget Sound		\$ 3,395
Keith Neitman	Puget Sound		\$ 1,825
Maureen O'keefe	Point Defiance		\$ 1,600
Patty Pearthree	North Carolina		\$ 1,380
Jan Mothershed	Portland		\$ 1,320

BFR 2004 Top Money Raising Chapters

Thanks to everyone again! Here are the top three fundraising organizations:

AAZK Chapter or Organization	Zoo Affiliation or Comments	Raised Funds
Detroit	Record amount	\$ 19,494
Oklahoma City		\$ 17,680
Puget Sound		\$ 14,368

Portland AAZK has raised the most since BFR started with over **\$ 168,000!**

It is extremely important to have continued participation from everyone if we are going to continue in our success. It doesn't matter how little or how much money is raised by your event. All events and funds raised are important! Public awareness of the plight of the rhino is of utmost importance so whatever it takes to get the word out is incredibly helpful. Remember, it takes about five consecutive years for a fundraiser to take hold where people start to count on it, so it's important to hold an event each year! It's also fun!

Bowling For Rhinos is not only about saving rhinos. We save rhino habitat so we are saving everything from orchids to elephants! For example, Lewa has the second largest population of elephant in Kenya and 25% of the world's Grevy zebra population.

Making a Difference

In the 1980's it was predicted that rhinos and elephant would be extinct by the year 2000 due to poaching. The number of elephants in Africa is half what it was 40 years ago. There are now about 550,000 elephants in Africa. The largest herd, estimated at 60,000, moves among five countries.

The black rhino population numbered about 100,000 in 1960 but remains around 3,100 today. It is true that the black rhino numbers have plummeted. However, just the fact that these numbers are not zero is only because of dedicated conservationists who had to literally resort to armed camps to protect the remaining numbers of these species. The southern white rhino made a comeback from 40 animals in 1913 to 12,000 today.

Indonesia's rhino population plummeted 50% in a matter of five years. Only after the onset of the very intensive and specially trained rhino patrol units has the population held steady. The International Rhino Foundation, US Fish & Wildlife Tiger and Rhino Conservation Fund, World Wildlife Fund, and AAZK are the main contributors to the Rhino Patrol Unit (RPU) program.

Without conservation organizations like AAZK, these animals would surely be extinct today. I hope you will rejoice in knowing these magnificent animals that have walked on earth for millions of years are still thriving. It is in our hands to continue this work to protect these animals and have their populations return to reasonable sizes. We **have** made a difference and will continue to do so.

Blue Rhino Gas Company

The Blue Rhino Gas Company became the **National Sponsor of Bowling For Rhinos** beginning in 2004. The Blue Rhino Gas Company is extremely conservation-oriented and uses the white rhino as their logo. They have pledged to donate \$20,000 per year to Bowling For Rhinos. Blue Rhino® is the leading cylinder gas recycler in the U.S. and keeps thousands of cylinders out of landfills each year. Some Chapters have also received additional support from their local Blue Rhino® gas suppliers. See www.bluerhino.com for more information.

The International Rhino Foundation

The International Rhino Foundation (IRF) secured a sponsor for two top money raisers from the 2004 event to travel to Bukit Barisan in Sumatra, Indonesia. The IRF has agreed to award these trips

annually. This will be offered in addition to the Lewa trips, but winners must have raised at least \$1,000 to be eligible. Trips will be awarded based on the 2005 event totals and winners will travel around February of 2006.

New for 2005

A proposal was approved by the AAZK Board of Directors to **increase funding to Lewa Wildlife Conservancy (LWC) from the first \$100,000 to the first \$120,000 raised each year.** The \$100,000 was chosen back in 1995 and to keep up with the cost of living increases, after 10 years, it was time to increase the amount. The new division of funds will begin during the 2005 fundraising year.

Use of Bowling For Rhinos Funds

One hundred percent of all funds raised are sent directly to three rhino conservation projects conserving four species of rhino, their habitats, and hundreds of other endangered plants and animals. BFR helps preserve the black and white Rhino in Africa and the Javan and Sumatran Rhino in Indonesia. The first **\$100,000 raised each year** (\$120,000 if proposal approved) goes to the Lewa Wildlife Conservancy with the remainder equally divided between the International Rhino Foundation and the Minnesota Zoo Adopt-a-Park/Sumatran Tiger Program for support of conservation programs for both Sumatran and Javan Rhinos.

Lewa Wildlife Conservancy, Isiolo, Kenya

The money AAZK raised with BFR was used to complete the Ngare Sergoi rhino sanctuary fence, fence in the Ngare Ndare Forest Preserve, purchase a plane and a Lorry (truck used to transport animals), fence off the two remaining boundaries and increase security. The old existing fence between the rhino sanctuary and the Ngare Ndare forest area was then removed. This created a 55,000-acre haven where everything from orchids to elephants could flourish. This allows the animals to migrate between the rhino sanctuary and the lush forest area - which is extremely important during times of drought. Recently, another 7,000 acres were purchased by Lewa. There are 145,000 acres under common wildlife policy but only 62,000 acres are enclosed by the fence with an area open at the north end to allow for the migration of elephant in and out of the sanctuary. In addition, Lewa is allowed to use the 15,000 acres of Ngare Ndare Forest Preserve. Starting in 1994, BFR funds were used to help provide the operating costs of this successful rhino sanctuary.

The annual operating cost of the sanctuary is over \$850,000 with 170 guards protecting the area. Anna Merz, AAZK's BFR funds, and private donations combine together to fund the operating costs. Operating costs include funding the security staff for the sanctuary and the wildlife, maintenance for the fence, vehicles and plane, and research staff to provide information such as carrying capacity determinations and fire burning regimes. By supplying operating costs, AAZK makes it easier for Lewa to solicit private donations to provide funding for special projects. Future plans include relocation of reticulated giraffe, common zebra, and other wildlife to restock depleted neighboring wildlife areas, and increasing the number of security patrols and vehicles. Fuzz Dyer, head of security for LWC since 1983 has moved back to his family ranch, Borana, which borders LWC. He plans to implement the same aims and principles of LWC at Borana, with the ultimate objective being to remove the fence between the two properties allowing for free movement of wildlife. If the plan works, it will create the largest conservation area made up of private and community-owned land in Kenya and would create 300,000 acres for wildlife.

When Anna Merz first started the sanctuary in 1983, it was a struggle to find a single rhino to initially stock the sanctuary. The population of black rhinos started with an initial translocation of 15 rhinos into the sanctuary in 1984 when it was only 5,000 acres. By 1994, when the sanctuary was expanded to 55,000 acres, 10 births had been recorded. Twenty births were recorded between 1993 and April 2002. During the spring of 2002, four black rhinos and four white rhinos were born bringing the total to 32 black and 33 white. Three of these calves were born to females that were themselves born within Lewa.

A number of the pioneer adult males were lost in the initial years due to fighting. To improve the sex ratio, seven males have been moved to other sanctuaries. Peak calving occurred after the 1997 El Nino rains. One hand-raised orphaned male was moved to the neighboring community conservation area of Il Ngwesi. There are now 38 black rhinos. The survival rate of calves has improved to 92%

since 1998. Lewa continues to restock other locations to maximize the production of rhino from within Lewa. Lewa could not have become one of the most successful rhino sanctuaries in all of Kenya without the unending support of AAZK's Bowling For Rhinos.

For additional information see the Lewa website at <http://www.lewa.org>.

Indonesian Javan and Sumatran Rhino Conservation Program

All BFR monies in excess of the funds provided to Lewa are used to support the Javan and Sumatran rhinos. This program has evolved over the years.

The two kinds of rhinoceros in south east Asia are the most endangered of the five surviving rhino species. There are fewer than 70 Javan rhino - about 50 in Ujung Kulon and another 2-7 in Cat Loc Vietnam. The Sumatran rhino is considered the most critically endangered species of rhino by the IUCN/SSC Asian Rhino Specialist Group (AsRSG). Fewer than 300 are estimated to survive worldwide. Although not as rare as the Javan rhino, poaching pressure is more intense on the Sumatran rhino whose population declined at least 50% from 1990-1995. BFR supports three National Parks in Indonesia which protect the Javan and Sumatran Rhinos. If it had not been for the support from IRF, US Fish and Wildlife Service Tiger and Rhino Conservation Fund, WWF and AAZK over the past 10 years, the Sumatran and Javan rhinos would surely have perished. We must now look to the future to maintain and increase the populations to respectable sizes.

In 1994, BFR initiated its support of these South East Asian rhinos through the Minnesota Zoo and its Adopt a Park Program for Ujung Kulon, home to the main, and probably only, viable population of Javan rhino on earth. All these funds raised over the amount allocated for Lewa were provided to this program.

Because BFR was so successful and the program wants to help as many rhino species as possible, in 1996 the program expanded to assist Sumatran rhinos as well, through the International Rhino Foundation (IRF). IRF used these funds to support the anti-poaching teams known as Rhino Protection Units (RPU's). The operational cost for each RPU is currently \$20,000/year. The RPU's are vital to the survival of Indonesia's and other wildlife.

At that time, in 1996, the most endangered population of Sumatran rhino was in Bukit Barisan Selatan (BBS) National Park in Sumatra. Hence, from 1998-2002, all funds raised by BFR in excess of what was needed for Lewa were equally divided between the Minnesota Zoo-Javan Rhino-Ujung Kulon Project and the IRF-Sumatran Rhino-BBS Project.

However, commencing in 2003, the IRF was able to secure a two-year grant from the Critical Ecosystem Partnership Fund (CEPF) administered by Conservation International to completely cover costs of the BBS anti-poaching teams (six concentrating on rhino and two on tiger although all eight protect both species and other wildlife as well). Hence, IRF requested and AAZK approved that the funds for Sumatran rhino be used for Way Kambas National Park where the 3rd largest population of Sumatran rhino in the world live.

Also in 2003, the Minnesota Zoo Adopt a Park Program concluded that BFR was so successful that not all of the funds being provided for Javan rhino were necessary for this species in Ujung Kulon. However, the Minnesota Zoo is also the Center of the Sumatran Tiger Conservation Program (STCP) that had formed a partnership with the IRF to support the anti-poaching teams in Way Kambas. Consequently, the Minnesota Zoo also requested and AAZK approved that some of the funds it receives from BFR be used to support the anti-poaching teams in Way Kambas.

There is now an Indonesian Rhino Conservation Program (IRCP) supported by IRF and partners like BFR and STCP. The IRCP includes all parks with rhino populations in Indonesia. This program coordinates funding so it is used on the highest priority needs in top priority locations to conserve wildlife. BFR is now part of this program. This allows the funding in any given year that goes through IRF as well as through the Minnesota Zoo to be allocated to these top priority locations. This allows BFR to expand the impact of its funding for maximum benefit of rhinos as well as tigers and other wildlife.

In the future, BFR funds will probably again be used partially in BBS since the current CEPF grant will conclude in 2005. However, both IRF and the Minnesota Zoo assure AAZK that funds provided by BFR will be used to respond to the most critical needs of Javan and Sumatran rhinos as determined by the IRCP, in consultation with the IRF, the Minnesota Zoo-STCP, and the BFR Coordinator.

Ujung Kulon National Park, Java, Indonesia

Ujung Kulon is a 300-square-mile National Park that is home to some of the rarest plants and animals on earth. It is one of the last remaining lowland rainforests in the world with hundreds of endangered plants and animals including the Javan rhino. The annual running cost of Ujung Kulon is roughly \$100,000.

Since 1996, \$253,410 has been sent to Ujung Kulon from AAZK's BFR events. These funds were used to purchase such items as a well, pump and water tower at the Karangranjang guard post, the completion of a new patrol boat, camera units for photo trapping census of the Javan rhino, installation and maintenance of the cameras, training staff for trapping census and preparation of photo inventory of field data, 32 hand-held radios, radar unit for night patrol boat and trained a "Rhino Patrol Unit" (RPU). These are very intensive, specially trained anti-poaching units of five men. These RPUS are the only proven method to effectively conserve these tropical forest rhinos.

Funds from 1999-2001 were used for the operational costs for camera checking for census work on the Javan rhino at \$21,000/year and to purchase a much needed high-powered patrol boat in collaboration with Minnesota Conservation Officers and the US Fish and Wildlife Service. There are currently three RPUs operating in Ujung Kulon. Future support will train and support the continued use of RPUs to protect wildlife, and pay for maintenance of existing buildings and equipment.

The photo-trapping census work in Ujung Kulon is now complete. 42 Javan rhinos have been individually identified including four calves. No poaching has occurred in Ujung Kulon over the last four years.

Bukit Barisan Selatan National Park, Sumatra, Indonesia

This Park is a 3,568-square-kms protected area on the southwest side of the island of Sumatra. Asian elephant, tiger, clouded leopard, Malayan sun bear, Indian wild dog, and a substantial number of the estimated 300 Sumatran rhinos live within this park. This Park likely has the 2nd largest population of Sumatran rhinos on the planet. BFR initiated its support of Sumatran rhinos with support for this park. From 1998 to 2002, \$110,010.42 has been sent to Bukit Barisan from BFR funds.

These lowland rainforests of Sumatra are habitat for the endangered Sumatran rhino, elephant and tigers. They also have the highest plant diversity ever recorded- twice that of the Amazon Rain Forest. Despite this wealth of nature, Indonesia has one of the fastest rates of deforestation in the world and this trend is particularly intense on the island of Sumatra.

Way Kambas National Park

Way Kambas is a park of approximately 1,200-square-kms on the south east side of Sumatra. It likely has the 3rd largest population of Sumatran rhinos in the world and is a crucial nucleus for the survival and recovery of the species. There are also 150-200 wild elephants in this park. Currently, the best use of and greatest need for the BFR funds is to support the anti-poaching teams in Way Kambas. In 2003 and 2004, BFR provided funds through IRF and the STCP to support anti-poaching teams in Way Kambas.

For additional information on rhino conservation, see <http://www.rhinos-irf.org/> or <http://www.5tigers.org/>.

BFR Fundraising Guidelines

- Events should be held between March 1- August 1st.
- Information is included in *AKF* requesting info on your upcoming event. This helps me know how

many new sponsor sheets you need and when your event date is in case people in your area call me for info. (Use the form on the next page to send in for your 2005 event.)

- If interested in participating, send for an information packet (or see <http://bfr.aazk.org>) and let me know the number of sponsor sheets to send.

*If you have never held an event, see “how to hold an event” on the web site.

- There is a **\$25 administrative fee** to participate, which should be made out to “AAZK, Inc.” and mailed to Patty Pearthree prior to obtaining sponsor forms. This fee covers indirect costs incurred by AAZK, Inc. due to BFR (phone, postage, faxes, and bank fees). Administrative fees are waived for the first year an AAZK Chapter participates.

- Call Patty if the information packet does not answer your questions (919-678-0449)

* There is now a multimedia BFR CD for any participating Chapter or institution that requests a copy. This CD includes a BFR slide show with script, a Lewa promo video and an Ujung Kulon video.

- **To win the trip to Africa or Indonesia, all money must be sent in to Patty by September 1st!**

- **Please try to have all money sent within 30 days of your event.** I write this paper in September so if you want to be included in these totals, send in the money.

- If a Chapter does not wish to send their checks certified mail, the following is the only way to insure that your check is not cashed by anyone other than AAZK, Inc.! **Please write “For Deposit Only” on the back signature area of all checks. This will ensure only AAZK can deposit it instead of just anyone who may intercept it!**

- Please make out one check payable to **“AAZK, Inc. Bowling For Rhinos”**, include a copy of your financial form & a copy of **only** the high moneyraiser’s sponsor sheets and mail to:

Patty Pearthree c/o Bowling For Rhinos

318 Montibello Dr. Cary, NC 27513

(919) 678-0449 ppear3@aazk.org web site <http://bfr.aazk.org/>

- * Contact your local “Rhino Linings” Company (truck liners) to see if they would be willing to help your event. Items donated in the past were, monetary donations, blow up rhinos, give-away items and a truck liner for raffle. You can contact Patty for the local contact nearest you.

- * Contact your local Blue Rhino Gas Company to see if they are willing to help your event **or participate** in your event. See www.bluerhino.com.

- * It is very important to remember that we advertise 100% of all donations go towards conservation. All donations from donors must be submitted to AAZK Bowling For Rhinos for this to be true. This means that your organization must cover any expenses for this event. This can be done by charging a fee for bowlers, through silent auctions, door prize raffles, your local organizations funds, etc.

*Anyone can join the Bowl-a-thon so **don’t limit yourselves to only zoo people. However, be sure it is clear that only National AAZK members are allowed to win the trips.** If you have a potential winner, ask them to join AAZK.

***No matter how small the Chapter is or how few bowlers you have, every dollar helps so don’t be afraid to give “Bowling For Rhinos” a shot!**



Bowling for Rhinos 2005

(Feel free to photocopy this form to submit to Patty Pearthree)



It's time to start planning for Bowling for Rhinos 2005. Please send in the information ASAP. Remember, if you want to be eligible to win any of the trips being offered, all monies must be sent to me by **1 September 2005**, and you **must** be a national AAZK member in good standing to qualify. If bowling isn't your thing, try Rock 'n' for Rhinos, Rummage for Rhinos, Run for Rhinos, or even just send in a Chapter of individual donation! Every penny counts toward saving rhinos worldwide!

Please Print Clearly

Contact person: _____

Zoo/Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____
Day - _____ Night - _____

Fax: _____ Email: _____

Will you be hosting a Bowling for Rhinos Event this year?

YES

NO

When? _____

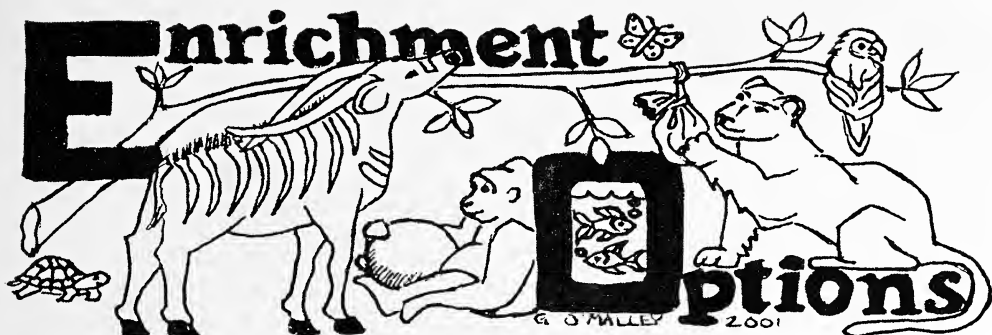
Where? _____

How many sponsor forms do you anticipate needing? _____

Would you like sample letters/flyers/posters? YES NO

Mail to: Patty Pearthree c/o Bowling For Rhinos
318 Montibello Dr.,
Cary, NC 27513

Questions? (919) 678-0449 ppear3@aazk.org website <http://bfr.aazk.org/>



*EO Editors - Dawn Neptune, Utah's Hogle Zoo
and Rachel Cantrell, Disney's Animal Kingdom*

This month, Enrichment Options will highlight the activities of AAZK's national Enrichment Committee, as there have been some BIG changes this year.

COMMITTEE MEMBERS

Amy Burgess of Disney's Animal Kingdom and 2003 committee co-chair is now our official chairperson. Lee Houts has retired from the committee but will remain on in an advisory capacity. Our new Board of Directors liaison is Bruce Elkins from Indianapolis, replacing Jeannette Beranger, who has been a great source of assistance during her time as liaison. We also have MANY new members to introduce who will join myself, Dawn Neptune (Hogle Zoo), as well as Alicia Shelley (Columbus Zoo). Welcome aboard to Rachel Cantrell (Disney's Animal Kingdom), Ric Kotarsky (Tulsa Zoo), Tammy Root (Indianapolis Zoo), Brad Lympany (North Carolina Zoo) and Nichole Bouwens (Zoo Atlanta). It is our hope that with this strong, new committee we will increase our productivity and service to the membership.

PROJECT UPDATES

• The AAZK Enrichment Notebook

This 455-page publication is now on a space-saving, environmentally friendly CD-ROM. It includes many facets of animal enrichment, is indexed for easy reference and is in a searchable PDF format. The sections include an overview of enrichment, links, suppliers, suggested guidelines for Bats, Bears, Birds, Carnivores, Fishes, Primates, Reptiles, and Ungulates, as well as safety considerations, browse lists, cookbook recipes, sample forms from a number of zoos, an extensive bibliography and a huge number of enrichment ideas/devices (organized by category). Get this wonderful resource NOW for only \$25 for members or \$40 for non-members via the AAZK.org website. There will also be a supplemental addition of Elephant guidelines available on the site soon, courtesy of the EMA, so keep an eye out for that! In addition, we are working on getting the notebook translated into Chinese, French and Spanish to share with enrichment programs worldwide.

• The Video Library

It has returned to the San Diego Zoo thanks to Val Hare and will be managed by two new librarians TBA. Check out the inventory online under the Enrichment Committee link or in 'The Shape of Enrichment'. This is an invaluable resource and we encourage everyone to check out and submit videos often!

• The Lee Houts Environmental Enrichment Awards

We encourage everyone to start thinking NOW about noteworthy nominees for the 2005 "Lee Houts Environmental Enrichment Awards". If you know an individual or group of individuals who have gone above and beyond to promote enrichment at your institution, they deserve recognition! The deadline for nominations is June 1st. Check out the February 2005 issue of *AKF* for details on the qualifications and nomination procedures.

• The Leather Elves Enrichment Device Contest

Think creative! Think innovative! Think about submitting your unique enrichment idea to the 3rd

annual device contest sponsored by Robin Shewokis of The Leather Elves. The winning design will be announced at the 2005 conference in New Orleans, will be named after you, built by The Leather Elves and a portion of the proceeds for each sale will go to AAZK.

- **Website** www.aazk.org/aazknew/committees/enrichment/comm_enrichment_title.asp

In 2005, it is our hope to start expanding the information provided on the committee website.

Ideas thus far include:

- Enrichment Day activities, marketing techniques, educational materials and organizational ideas from other zoos
- Programmatic Info regarding how to initiate a program, goal setting, documentation, data collection/analysis, schedules, committee activities, etc.
- Fundraising Ideas
- Suppliers
- Enrichment Coordinator Contact List
- Enrichment Animal Data Transfer forms in downloadable PDF
- Enrichment in Action Photo Contest
- Link to *Animal Keepers' Forum- Enrichment Options* column updates and submission guidelines

- **2005 AAZK National Conference Planning & Preparation**

Discussions for next year's committee workshop are already in the works. A few ideas to consider (let us hear your thoughts):

- Device workshops
- Designing naturalistic exhibits with enrichment in mind
- Enrichment on a budget
- Herp enrichment
- Public/Guest involvement and education
- Planning Documentation and Analysis
- Open Discussion/Problem Solving Roundtable

- **How can you help the committee?**

- Submit videos for the conference video night
- Contribute your ideas and input regarding conference committee activities
- Partner with us to present your idea at the conference
- Write articles for the *AKF's Enrichment Options* column
- Promote and/or submit for The Leather Elves device contest
- Nominate your worthy peers for the Enrichment Award

- **Summary of the 2004 AAZK National Conference Committee Activities**

In addition to our meeting with the delegates and the always fun video night, the committee hosted a workshop on the importance of behavioral goal setting in your enrichment program. Committee members demonstrated an interactive goal development chart that can assist keepers in developing and/or reassessing their programs' overall goals. Setting goals based on knowledge of an animal's natural and individual history will encourage species-appropriate behaviors. It can help pinpoint what activities and devices might be needed to achieve those behaviors. This workshop provided a hands-on activity to help delegates initiate and/or revitalize programs back at their own institutions. We encourage you to check out this helpful brainstorming tool at Disney's Animal Kingdom's® informative enrichment website www.animalenrichment.org under the Setting Goals® link.

And so the committee continues to grow, evolve and strive to achieve our mission "to provide animal caregivers the means with which to enrich, stimulate, and challenge the lives of the animals in their care." We hope that you will become an active participant in AAZK's Enrichment Committee. We look forward to hearing from you...see you in "Nawlin's".

If you have any questions, comments, suggestions or other feedback, please be encouraged to contact Amy Burgess, AAZK Enrichment Committee Chair, at < Amy.E.Burgess@disney.com >.

AAZK Publications/Accessories Available

The following AAZK resource/reference publications in CD format and AAZK Logo Patches and Pins are available for purchase several ways. You may use the order form below; you may order online at www.aazk.org by either printing out an order form or using PayPal; or you may phone in your order at 1-800-242-4519 (U.S.) and 1-800-468-1966 (Canada) using either a Mastercard or Visa credit card. If sending in an order, please address to: AAZK, Inc., 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054 USA. Checks or money orders should be made payable to AAZK, Inc. in U.S. Funds ONLY.

Biological Information for Selected Mammals 4th Edition - The 1,396 page *Biological Information on Selected Mammal Species* CD covers a wide range from general, breeding, and young-rearing behavior to diet and physical descriptions of 590 species. The volume is in a PDF format allowing searches by Species (Common or Latin name); or Key words using the *Find* function; or by Species (Common or Latin name), Family; or Order using the *Bookmarks*. Table of Contents are given for Orders, Families, Species by Common Name, Species by Scientific Name, and Species by Order and Family. The Appendices cover a variety of information from behavioral patterns common to families (Bovid displays) to taxonomy (Primates). References are listed by Order and Family. Prices: AAZK Member \$25.00 NonMember \$40.00

AAZK Enrichment Notebook, Third Edition - This 455-page publication includes many facets of animal enrichment and is indexed for easy reference. The sections include an Overview of Enrichment, Enrichment Links, Enrichment Suppliers, Suggested Guidelines (Bats, Bears, Birds, Carnivores, Fishes, Primates, Reptiles, and Ungulates), Safety Considerations, Lists of Browse Plants and Toxic Plants, Cookbook Recipes for Enrichment, Enrichment Ideas/Devices (organized by category), Sample Enrichment Forms currently used in zoological facilities, and an extensive Enrichment Bibliography. This is a searchable PDF format document utilizing Acrobat Reader which is included. Prices: AAZK Member \$25.00 NonMember \$40.00

Zoonotic Diseases, Third Edition - Searchable PDF Format • Hyper-linked Zoonotic Disease List • Updated Guidelines for Animal Care Personnel • Updated Hygiene and Disinfection Section • 82 pages of Information. AAZK Member \$9.50 NonMember \$12.00

Publication prices include domestic and Canadian shipping. For overseas orders, please add \$5.00 per CD for Air Mail service.

The New AAZK Logo is now featured on both patches and enameled lapel pins. The colors are tan, rust, burgundy, grey and blue with a black border. Patches (4" x 3") cost \$8.00 each. Lapel pins are \$6.00 each. Prices include domestic and Canadian shipping. This price covers postage for one (1) pin or one (1) patch to overseas addresses. For orders from 2-6 patches or pins, overseas orders **must** add \$2.00 additional for shipping.

Please send the following items: SEE PRICING ABOVE - Indicate quantity below

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ELECTION.....2005

Yes! It is once again time to elect Board of Directors for the Association. There are two positions up for election. Those positions are held by Denise Wagner and Bruce Elkins whose terms end with the 2005 Conference. New Board members will serve a four-year term from the close of the 2005 National Conference until the conclusion of the 2009 National Conference. If you or any one you know would like to be nominated for these positions please send your completed forms to: Election 2005, c/o AAZK, Inc., 3601 SW 29th St., Ste. 133, Topeka, KS 66614-2054. All nominations need to be received **no later than February 28, 2005**. If you have ever wanted to make a difference in AAZK, now is the time to step up to the plate and give us your best.

Duties of the Board of Directors

- 1) Select, appoint or remove officers, committees, agents and employees of the Association, including - prescribing powers and duties.
- 2) To control and manage the Association and its property, passing upon acquisition and disbursements with approval of a majority of the Board.
- 3) To formulate policies, rules and regulations in accord with the Constitution & By-Laws.
- 4) To uphold the Constitution of AAZK and the policies of the Association.
- 5) To appear at Board meetings, to accept Board assignments and to devote the time to communications pertinent to all Board business, including answering correspondence promptly and efficiently.

Qualifications for Nomination

- 1) Nominee must be a Professional Member of AAZK, Inc. in good standing and must have been a member of the Association for at least one (1) year.
- 2) Nominee must be presently employed as an animal keeper/attendant, veterinary technician, research technician or other personnel directly connected with the care, feeding and educational display of captive wildlife in a recognized zoological park, aquarium, animal reserve or other animal care facility in the U. S. or Canada and must have been in the zoological field for at least two (2) years.

Nomination Procedure - Forms MUST be Typed

1) Nominator Form:

- a)** List the name of the nominee, phone, address, and institution.
- b)** State in 150 words or less the reason(s) why the nominee warrants election to the Board of Directors.
- c)** Nominator signs forms and mails to NEC Chairperson.
- d)** Notifies nominee that they nominated him/her for the Board of Directors.

2) Nominee Biographical Form:

- a)** Professional background: places of employment, length of service, titles.
- b)** Membership in AAZK: National and local Chapters, number of years, offices held, involvement in activities.
- c)** Educational background.
- d)** Membership in Affiliate Organizations: (AZA, CAZPA, Audubon, etc.)
- e)** State in 500 words or less why you would like to be on the BOD and any other pertinent information. (optional)
- f)** References (one or two)
- g)** Nominee signs forms and mails to NEC Chairperson.

NOTE: Candidate is ineligible for nomination if **both** the nominator and nominee biographical **forms** are not **complete** and **returned** by **28 February 2005** . Send to: Election 2005 c/o AAZK, Inc., 3601 SW 29th St., Ste. 133, Topeka, KS 66614-2054.

Nomination Form for
AAZK Board of Directors

(Forms MUST be Typed)

Qualifications for Nomination:

- 1) Nominee must be a Professional Member of AAZK in good standing and must have been a member of the Association for at least one year.
- 2) Nominee must be presently employed as an animal keeper/attendant by a recognized zoological institution or aquarium in the U.S. or Canada and must have been in the zoological field for at least two years.

1. Name of Nominee:

Address:

Phone:

E-mail:

Institution:

Director:

2. State in 150 words or less the reason(s) why the nominee warrants election to the AAZK Board of Directors. Use extra paper if needed.

3. Signature of Nominator: _____

4. Name of Nominator _____
(please PRINT)

5. Form must be received by 28 February 2005. Send to: Election 2005 c/o AAZK, Inc., 3601 SW 29th St., Ste. 133, Topeka, KS 66614-2054.

Nominee Biographical Form
for AAZK Board of Directors

(Form MUST be Typed)

1. Name:

Address:

Phone:

E-mail:

PLEASE LIST THE FOLLOWING INFORMATION

2. Professional Background: (places of employment, length of service, titles)

3. Membership in AAZK:

a) National: number of years

Activities:

**b) Local Chapter(s): number of years, offices held,
involvement in activities.**

4. Educational Background:

5. Membership in Affiliate Organizations (AZA, Audubon, WWF, CAZPA, etc.)

6. State in 500 words or less why you would like to be on the BOD and any other pertinent information (optional/use additional paper if necessary)

7. References (one or two); give name, address and phone number where they can be reached:

8. Nominee's Signature:_____

9. Form must be received by 28 February 2005. Send to: Election 2005 c/o AAZK, Inc., 3601 SW 29th St., Ste. 133, Topeka, KS 66614-2054.

REACTIONS

A Question and Answer Forum for the Zoo Professional on Crisis Management

By William K. Baker, Jr., Curator
Panthera Research, Maumelle, AR



Question

Do you have any suggestions on what's the best way to locate and store firearms in a zoological setting?

Comments

In my experience, there are three ways to approach the issue of firearms storage in a zoological facility.

One, you can have a centrally located area or space that is designated as the primary firearms team workspace. Normally this would include firearms, ammunition, gun safe, worktable space, cleaning supplies, gunsmithing tools, gun vise, targets, flashlights, extra radio units, practice ammunition, range bags, spotting scopes, binoculars, tactical vests, entry tools, an emergency tool kit, fire extinguisher, pepper spray canisters, and just about anything else that you believe you may need in an emergency.

The workspace is typically in an unused office, storage closet, extra room at the veterinary clinic, or some other type of room that is located inside a climate-controlled building. This provides a dry quiet area for staff members to train and maintain their equipment. The key component to all of this is that the space is climate-controlled. This prevents large variances in temperature and humidity and in turn reduces the chance for rust to get a foothold on your firearms and equipment. The main problem with this approach is that everything is in one place and you may be at the far end of the zoo with an escaped animal between you and it.

Two, you can develop multiple storage areas around a facility. Translation, you have two or more firearm closets located through out the facility. There are two immediate problems with this approach. First, you often have to duplicate equipment at both locations, which is an added expense. Second, you may run into problems on where you will locate the equipment. By that I mean, there may be no ideal secondary or tertiary location and you may have to make do with something less than optimal.

I've always believed the best approach to this would be to construct large concrete kiosks in key positions around a facility with HVAC capabilities. During daily use they could be covered with graphics for the visitors and would be unobtrusive and really harmless looking except for the industrial deadbolt on the metal door (painted to match the kiosk). This way you get what you need, where you need it, and without the disadvantages of other approaches. Unfortunately, like most things in our industry this would of course require additional funds for construction, electrical, and HVAC to support what I am discussing here. Still, I believe the idea has merit and would work.

Three, you can locate firearms directly in dangerous animal areas. This approach has the merit of having them on hand, usually located in a service area of a nighthouse. However, this does have a few problems associated with it as well. The primary problem you will have to confront is humidity and temperature variances. Animal work areas are usually hosed and sanitized on a daily basis and

this aerosols chemical residue and moisture into the air, not to mention that as your floors dry, (even after using a squeegee) there will be a large amount of humidity in the air. Now, I'll be the first to admit that temperature-controlled buildings will fair better when it comes to drying out and dehumidifying the air, but it takes time; And, time is against you on this even if you store them in closets off the floor.

Now are there several ways to work around this. First you can use canister-based desiccants or Golden-rods* in your gun safe, but they will have to be inspected and maintained on a regular basis. At one facility that I toured many years ago they developed airtight cabinets with a keyed lock for team members and breakable glass for staff members working in dangerous animal areas. By utilizing extremely high tolerances during construction, waterproof rubber gaskets, and a water repellent coating on the cabinet they overcame the vast majority of the aforementioned problems. Also, by placing the cabinets in "safe zones" in the nighthouse corridors, the Zoo Keepers were able to access them behind lockable mesh doors, essentially there was always a way that the staff could control animal access to the same area. Not a bad idea at all, since no one wants to race a leopard to the firearms cabinet.

If I had to choose one approach to all of this, I would probably opt for number two and build the kiosks with only Emergency Response Team members having key access to the firearms, dart rifles, and logistical equipment. Also, I should mention that it is really not a bad idea to keep at least one firearm located in the veterinary clinic of your facility just in case something dangerous decides to get up off the table. I prefer to plan for the impossible and hope for the best, that way no one is really surprised when something really strange happens.

Next Month: In preparation for a natural disaster, what emergency items would you recommend that you keep stored in vehicles?

If you would like to submit a question for this column or have comments on previously published materials, please send them to AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614 Attn: Reactions/AKF

Update: As many of you may have already noticed, *Reactions* has a new look. It's actually hard for me to believe that when Susan Chan and I came up with this idea 10 years ago that it would fly, much less last 10 years! And, I'll admit that sometimes it does feel like I'm working in a vacuum, that is until I get to a conference, receive a letter, or the occasional telephone call. It's only then that I realize how far reaching the *Animal Keepers' Forum* is, not only here in North America, but internationally as well. So I would take this opportunity to thank everyone for their support through the years.

Also, it's of note that I show my facility now as Panthera Research and many may ask if I'm still a Curator at the Little Rock Zoo, to which I would answer, "Yes, I am". Panthera Research is a team of zoological professionals and veterinarians from multiple disciplines with a common interest in ethology, operant conditioning, environmental enrichment, master planning, exhibit design, crisis management, and zoological safety. Effectively, we use funds generated through consulting to underwrite pure research in the aforementioned areas and publish the results, so that the entire wildlife and zoological community may use it. With time, it is my hope that this project will continue to grow.

(About the Author: Since 1985 Bill has been active in the fields of science, zoology, and wildlife management. His education and experience include a B.S. in wildlife management and post-graduate studies in zoology, Lab and Museum Assistant, Shoot Team Leader, ERT Member, Large Mammal Keeper, Senior Keeper, and Zoo Curator at various zoological facilities. His area of research is crisis management in zoological institutions, which draws upon practical experience and training as a Rescue Diver, Hunter Safety Instructor, NRA Firearms Instructor, and Red Cross CPR/First Aid Instructor.)

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**The 2004 Conference Proceedings
will be mailed in January 2005**

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Chapter News Notes

San Diego AAZK

In mid-November the San Diego AAZK Chapter presented an Ear notching and Processing Workshop presented by Animal Care Manager Curby Simerson. The following is a summary of the workshop.

There are various methods that zookeepers and animal care professionals use to identify their animals. Many animals can be recognized by unique physical characteristics. Variations in size, coat patterns and color are just a few ways that animals can be distinguished from one another. Recognizing hoofstock by physical traits is not always a simple task, especially when looking at large groups. Most hoofstock at the San Diego Zoo and Wild Animal Park are permanently identified with ear notches that correspond to a specific numbering system.

Simerson detailed this identification process during the November AAZK workshop entitled "Ear Notching and Processing, Everything You Wanted to Know (but were afraid to ask)".

"Ear notching is a way to identify individuals in large herds," commented Curby. "It's used here, at the Park, and also at St. Louis." According to Curby, it is not universally used in other zoos, partly because many zoos do not access or ship animals as often as San Diego, and also because ear notching is not good for animals who live in cold climates.

"The ID process begins when animals are processed," stated Curby. This process can include, inserting a trovan or transponder chip (usually intra-scapular), tattooing a BK number (SD ZOO) or WAP number (Wild Animal Park) in a specific location, and notching the animal's ears. The illustration included with this review indicates where the notching numbers are located on the animal's ears. Numbers 1-9 are notched on the left ear, while numbers 10-90 are notched on the right.

An animal with an ear notch (EN) ID of 47 will have the 40 notch on the right ear and the 7 notch on the left. An animal with an ID of EN 38 will have an ear notch of 10 and 20 on the right and 1 and 7 on the left. There can never be more than two notches per ear. Animals with EN numbers

greater than 99 are given colored tags on their right ear; red tags for 100 and yellow tags for 200. The same mathematics is then applied. For example, an animal whose EN number is 137 will have a red tag and a 10 and 20 notch in the right ear and a 7 notch in the left ear.



Curby's presentation was supplemented with Power Point quiz. Participants identified animals by their correct ear notch number from photos of hoofstock from the park and zoo. In some cases, the notches were not clearly visible or the animal's ears had more than two notches per ear. Curby's suggestion was to then deduce the animal's ID based on the rest of the animals in that herd.

The workshop was completed with a mock ear notching of paper cut outs. Although not the real thing, it gave everyone an opportunity to handle the ear notching and tagging tools while allowing them to practice the correct ear notch placements.

SD AAZK provides these keeper-based workshops throughout the year. Past workshops have covered such topics as roping, netting, hoof trimming, and enrichment. Our goal is to continue to provide these workshops at 3:00 PM, making it possible for keepers and animal care personnel to attend right after work.

--Bob Cisneros, President
American Association of Zoo Keepers
San Diego Chapter, San Diego, CA

California Desert Chapter AAZK

It has been a busy but productive fall for the California Desert Chapter AAZK.

In October, Michael Connor, Director of the Tortoise Preservation Committee, presented a

CHAPTER LOGOS

lecture on Mojave desert tortoise conservation. It was an enjoyable and informative lecture and we hope to plan a tour of this site in the spring.

We held our first ever AAZK Garage Sale on November 13th, raising over \$500.00 to benefit our Chapter. Zoo staff, docents, and volunteers generously donated items to be sold and this event could not have been a success without them.

Our final fall lecture took place on November 16th. The Living Desert's own Terrie Correll spoke on antelope conservation in Sahelo-Sahara Africa. During the event, we sold handmade greeting cards, porcupine quill necklaces, and other stocking stuffers. We were able to raise over \$50.00 for the evening. Thank you so much to everyone who helped make these events a success.

---Jeremy Konwiser, Chapter President

Does your Chapter have a new logo? Please keep us up-to-date if you change your Chapter logo. Also, new Chapters are encouraged to send in a copy of their logo as soon as they adopt one. Logos may also be sent as graphic file attachments (tiff or jpeg) to the email address listed below.

We will be producing another Chapter Logo Registry in 2005, so make certain the logo in our file is your most current one. When sending in logos, please include name of the artist/designer, date logo was adopted, and what, if any, significance is in the design - animals represented, etc.

What's your AAZK Chapter been up to? Send your Chapter News to the Editor at:
akfeditor@zk.kscoxmail.com

Were Zoo Workers Infected With Cancer-causing Animal Virus?

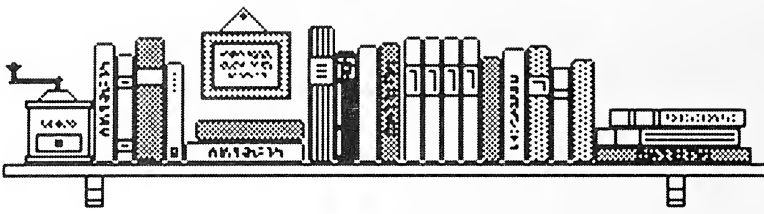
Evidence of exposure to a monkey virus possibly related to cancer has been found in the blood of North American zoo workers, according to a study in the 15 December issue of *The Journal of Infectious Diseases*, now available online. The virus, a polyomavirus known as simian virus 40 (SV40), has long been a subject of public health concern, in part because it has been shown to cause cancer in laboratory animals, and some investigators have reported SV40 DNA in human tumors.

The authors, Eric A. Engels and coworkers at the National Cancer Institute, National Institutes of Health, Rockville, MD, the Centers for Disease Control and Prevention, Atlanta, GA, and The Johns Hopkins University School of Medicine, Baltimore, MD, studied 254 zoo workers, 109 of whom handled primates extensively and the remainder not at all. An antibody assay showed that SV40 reactivity was more common among primate workers (23%) than among the other workers (10%). These low rates, which suggested absence of ongoing SV40 replication, contrasted with assay results showing 85% and 56% reactivity, respectively, for two other polyomaviruses, BK and JC, which are highly prevalent in humans and establish lifelong infection.

When the investigators used particles of SV40, BK, and JC to evaluate whether SV40-positive reactions were specific or represented cross-reacting antibody responses, only 14 of 29 subjects demonstrated specific reactivity. Engels and coworkers commented that this suggested that much of their SV40-positive results were probably due to BK or JC virus cross-reactivity.

The investigators cautioned that there is as yet no definitive evidence that SV40 can persistently infect humans, and that the health consequences of SV40 exposure, including the risk of cancer, are still unknown. Nevertheless, they concluded that their study "suggests that individuals who work closely with nonhuman primates are occupationally exposed to SV40," and that further studies of the issues involved are needed.

In an accompanying editorial, Keerti Shah of The Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, commented that, "although humans in contact with primates may become infected with SV40, currently available evidence does not suggest that SV40 circulates independently in the community or that it contributes to the development of any human cancer." Because of uncertainties in the evidence, however, he recommended further studies, including closer study of those exposed to primates, "that investigate the 'full signature' of SV40 infection" like genomic sequences, transcripts, antibodies, T cell response, and so on. (For more information, visit www.idsociety.org.)



Book Reviews

Breeding Food Animals

Live Food for Vivarium Animals

By Ursula Freiderich and Werner Volland

Kreiger Publishing Company, P.O. Box 9542, Melbourne, FL 32902-9542

Original English Edition 2004

ISBN 1-57524-045-9

pp. 178 Hard Cover \$29.50

*Review by Tracey Anderson, Instructor
Pikes Peak Community College
Zookeeping Technology Program
Colorado Springs, CO*

Anyone who keeps animals in captivity that require a diet of other live animals, whether invertebrate or vertebrate, knows the importance of providing those feeder animals with quality care. There are a number of ways one can acquire feeder animals, but they are not all always an option for all food sources. It is the combination of these that will allow one to offer the greatest variety of food to animals requiring other animals for food. It is not always feasible or acceptable practice to utilize wild-caught sources for these food items and their regular purchase can be costly. Establishing your own breeding colonies for your collections insures variety, quality and a guarantee of a supply of live food.

This book included information beyond the basic breeding of live foods for vivarium animals. It included help and hints on establishing the highest quality of foodstuffs as well as how to present and encourage feeding behavior in your vivarium animals. The topic of the risk to the vivarium animals is also discussed with hints on how to reduce and avoid the risk of feeding live foods.

Within the first 24 pages of the book, the reader is briefed on many topics including Significance of Live Food; Catching Buying and Breeding; Feeding Live Food to Vivarium Animals; Food Animals and Conservation; Reason for Breeding; Time and Material Requirements; Legal Aspects; Starting a Breeding Setup; Nutrition for Food Animals; Hygiene and Breeding Setups; and Breeding Setups which included a few good simple depictions of sample set ups to use as guidelines.

The live food animals included in the book include frequently used items as well as some unusual ones. These include plankton; nematodes; segmented worms; mollusks; crustaceans; insects; orthoperans; butterflies and mammals. Each inclusion contains a description, development times, information on containers, substrates and equipment, food and feeding, breeding conditions, pests and diseases, miscellaneous notes and the advantages and disadvantages which is always exceptionally helpful insight.

There are several black and white photographs and diagrams throughout the book.

Even though this book is geared towards starting breeding colonies of live foods in the home environment, it would be a great source for anyone – private or professional – needing or wanting to establish captive-bred food items for their vivarium animals. Anyone wanting to establish or broaden their own captive-bred food animals for their vivarium collections should check out this book. It would most likely prove to be a valuable source.

NOTE: There were multiple typographical errors throughout the book including one on the spine of the cover.

Good Bird! A Guide to Solving Behavioral Problems in Companion Parrots!

By Barbara Heidenreich

Avian Publications, 6380 Monroe St. NE, Minneapolis, MN. 55432

www.avianpublications.com< 1-800-577-2473

ISBN 1-895270-27-8, 80 pps, \$15.00 U.S.

*Review by Leslie Keys, Principal Keeper, Bird Section
Detroit Zoological Institute, Royal Oak, MI*

This is a short and very much to the point book about modifying behavior in problem parrots. In the first chapter, the author, Barbara Heidenreich prepares the owner of the problem bird. She discusses treats and explains how not all treats are food and offers alternatives to food treats. She explains interpreting bird body language and recognizing illness and stressors as well as recognizing signs and types of aggression. In each successive chapter, Heidenreich, tackles one objectionable behavior, identifies it and discusses how to modify or eliminate that particular vice. She covers screaming, biting, one-person bonding, cage bound birds and feather picking. First she describes the particular behavior and the outcome using the usual method. Next she describes her solution and the new and improved outcome.

The methods described in this book seem overly simplistic at first glance. For example, the solution to biting is to not do anything that would make a bird bite. Upon further explanation though, bite avoidance is a fraction of the solution. That is just the immediate action to prevent a bird from repeating un-wanted behavior and possibly getting an inadvertent reward and further ingraining a habit. This also addresses making the bird comfortable enough that it doesn't feel it has to bite, steering the behavior into acceptable channels and rewarding non-biting. Heidenreich's system makes sense and I'm sure it would work on many parrots. I'm not convinced that it as simple as it seems with all parrots, particularly in a zoo setting where the keeper has many other responsibilities that would make spending hours a day with one bird nearly impossible. Most keepers just don't have that much time.

Having said that, this is still a good book with many decent suggestions. This could be particularly valuable when receiving a new parrot into an institution and new habits are being formed. It would be well worth the price if it curtails screaming, biting and other nasty habits that might drive a keeper to avoiding the bird. If it stops or prevents the feather picking that ruins a bird's looks and makes the public wonder why we are keeping and displaying what they perceive as diseased or mistreated animal and feel obligated to tell us about in no uncertain terms, then this book is a bargain at twice the price. It is easy to read, easy to understand and certainly worth the time.

Mammals of Afghanistan

by Khushal Habibi, 2003 ISBN# 81-88722-06-5, published by the Zoo Outreach Organization with assistance from the U.S. Fish and Wildlife Service.

Zoo Outreach Organization 29-1, Bharathi Colony, Peelamedu,
Coimbatore, Tamil Nadu 641 004 India.

Paperback, 168 pages. Unknown price.

*Review by Nannette Driver, Primate Keeper
Chaffee Zoo, Fresno Ca.*

Mammals of Afghanistan is an excellent guide to the wildlife in the Afghanistan region. This book begins with a historical background of the wildlife in Afghanistan. This region has been in turmoil for a very long time and has caused a very hard impact on the wildlife. There has been "indiscriminate hunting, destruction of suitable habitats, deterioration of range conditions, lack of laws...and difficulty in imposing laws" factors that have decimated carnivore and ungulate populations." Little research has been done in the area during times when situations were stable in the country. Present knowledge about the wildlife in the region is very limited, and with the political unrest in the area it is unlikely that there will be much research coming from this region.

This book gives information on the status of the animals, ecology and behavior as well as descriptions of the different habitats in this biogeographic region and is intended to be a reference for future field studies.

The animals covered in this book are the eight orders of class Mammalia including insectivores, rodents, primates, hoofstock, and carnivores. Each animal entry has a description of the animal, its habitat, behaviors, distribution and status. There is also a drawn picture of most of the animals listed.

I enjoyed this reference book, it is easy to read, and organized well. It provided enough information about the region to give me a better understanding of the history and current conditions in Afghanistan without becoming an overwhelming history lesson. The descriptions of the wildlife were well written and at the back of the book it lists all the animals mentioned by scientific name and common name for cross referencing. I would recommend this book to anyone that wants to learn more about the wildlife of Afghanistan or that is planning on doing any field work or travel to the area.

AAZK Grant Programs!

Travel, Conservation, Research, and Professional Training

The Geraldine Meyer/AAZK Professional Travel Grants. A total of \$2,000.00 is available annually. Grants are awarded twice a year, in May and November. Applications, from new and experienced keepers, are evaluated on their merit based on the member's submission of all requested materials. Awards may range from \$1,000.00 to \$250.00 or less depending on need. Applicants are encouraged to solicit additional funds from their institution or other sources. Applicants with other committed funds, or in-kind support (time off) will receive slight priority but all applications are encouraged.

Applications for mid-year consideration are due by February 1 of the calendar year; applications for end of the year consideration are due by July 1 of the calendar year. Money will be available upon notice to the recipient. Winners are required to submit an article to the Forum on the workshop or research they participated in.

AAZK awards \$1,000.00 to the winning applicant to attend the new ***Advances In Animal Keeping Course*** offered by AAZK and AZA through the AZA professional schools program. Applications are due by July 1 of the year prior to the one in which the applicant wishes to attend this course.

Conservation, Preservation, and Restoration Grant awards up to \$1,000.00 once a year for projects oriented toward all conservation, preservation, or restoration of habitats/species with a preference for projects taking place in the U.S. but not limited to this. Applications are due June 1 of the calendar year for funding the following year.

Research Grant awards up to \$2,000.00 once a year for AAZK member driven research projects, small or large! Applications are due June 1 of the calendar year for funding the following year.

Information on the AAZK grant program is available on the AAZK web site or by contacting the Grants Committee Chair at: jrsotter@iserv.net, jan.smith@columbuszoo.org or 616-366-1033.

Safe Sugar Glider Transport at the Newark Museum Mini Zoo

*By Kristen Schmid, Senior Animal Keeper
Newark Museum Mini Zoo, Newark, NJ*

When the Newark Museum Mini Zoo accepted a rescued Sugar Glider (*Petaurus breviceps*) from a local animal hospital in the spring of 2003, we knew that the use of this animal for educational programs would pose a challenge. This particular animal was brought to the clinic after a new homeowner discovered him in an empty closet, where he had resided since escaping from the previous homeowner. We immediately inferred that "Petie" had inborn escape artist potential. This, in addition to the sugar glider's small size, quick movements, and ability to glide, was factored into the special system of transportation that was eventually adopted for him.

Luckily, Petie had been previously socialized to humans, because he was easily acclimated to physical handling from our staff of keepers. Petie was encouraged to lick flavored yogurt off our fingers daily until he became accustomed to several different people. Considering his previous escape history, Animal Keeper Holly Griffiths began contacting zoos with sugar gliders to learn how gliders could be safely used in educational programs. In 2003, eleven zoos in the U.S. had gliders in their collection, but we were surprised to learn that very few were able to use them successfully in a program setting. Reasons cited were the gliders' apparently endless defecation and urination during a program, the educators' difficulty with physical handling, and the lack of a safe method of temporary display. Although some zoos and many hobbyists are fond of transporting and carrying sugar gliders by hand, shirt pocket, or fanny pack, this was never considered as an option by us due to obvious escape and safety issues.

Petie's system of transportation allows him to always be contained so that escape risk is virtually eliminated. His home cage (manufactured as a birdcage) has six sliding doors and one large door about half the size of the cage front. Each door is fastened with a metal clip to prevent Petie from opening them (Figure 1). Keepers remove him for cleaning each day by inserting a small plastic carrier (10 cm X 15cm X 10cm) and lid separately through a sliding door (Figure 2). The carrier with the lid on will not fit through the door, but the carrier by itself fits almost exactly through the door, so there is no extra escape room while the door is open. Keepers then put both hands through a door and coax Petie into the

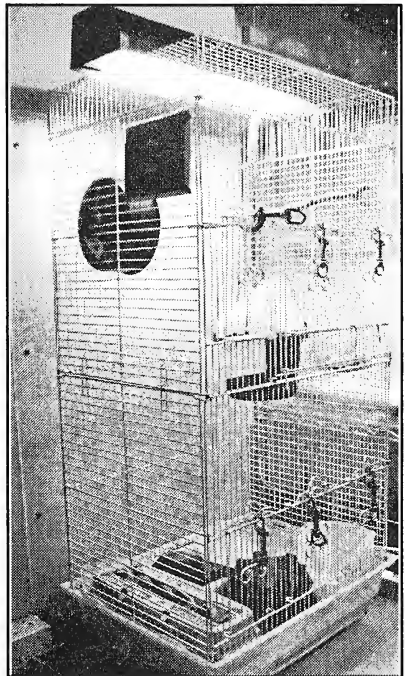


Figure 1 – Sugar glider permanent cage (photo by Kristen Schmid)

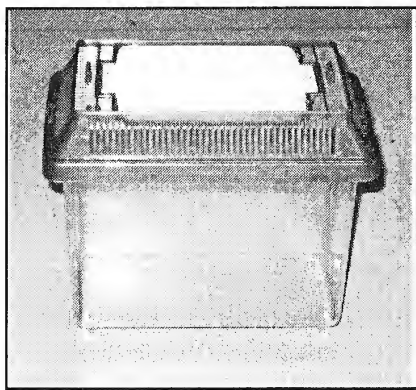


Figure 2 – Small carrier with sealed plexi top (photo by Kristen Schmid)

carrier with bugs and snap the top on. This system works beautifully, because the door will slide down over the hand so there is no extra escape room (Figure 3). We found that Petie was capable of popping the trap door in the lid of the small carrier, so it was sealed shut with plexi. The carrier with Petie inside is then removed from the cage using the large door and placed into a smaller transport birdcage of a similar design. This one has three sliding doors and a removable top with clips that hold the doors closed. The carry handle on the top of the transport cage has been removed to prevent escape

in the event that the cage is not snapped together tightly (Figure 4). Once the carrier is inside, keepers can reach through the doors and pop the top, leaving Petie free to explore his temporary home (Figure 5 and 6)

Our education collection is located very close to our public gallery, so this is how Petie is transported there for educational programs. For longer trips through the building, the entire transport cage is placed in a Tupperware™ storage bin. He is kept in it for no longer than a four-hour period, and we do explain to children that the smaller cage is not his permanent home.

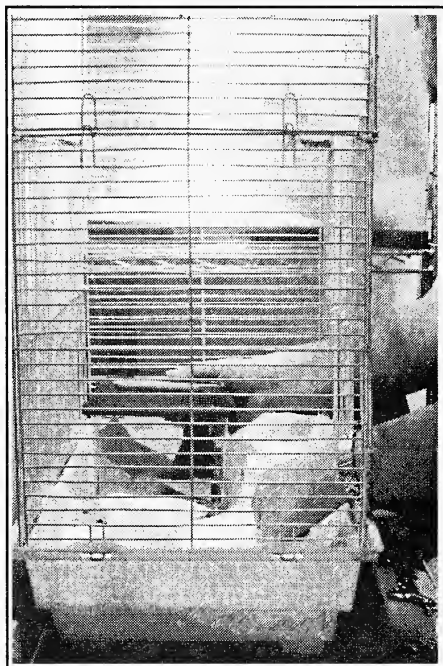


Figure 3 – Keeper Kelly McKeon putting glider into small carrier within permanent cage. (photo by Kristen Schmid)

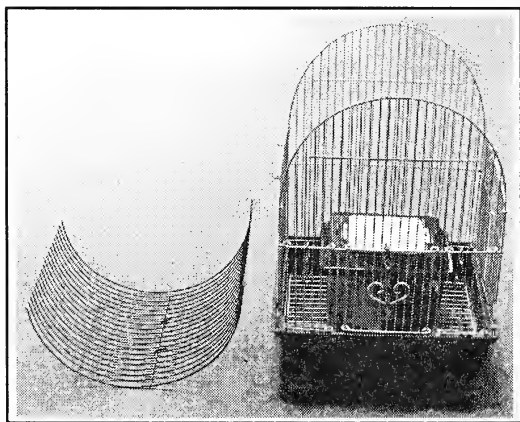


Figure 4 – Temporary display cage (photo by Kristen Schmid)

To remove him from the transport cage, we put both hands through the doors of the cage and coax him back into the carrier with bugs and snap the top on. The carrier can be removed from the cage through the removable top and put back into his home cage through the large door. Once the doors on his home cage are locked, the keeper can again put both hands through the smaller doors, pop the top and remove the empty carrier.

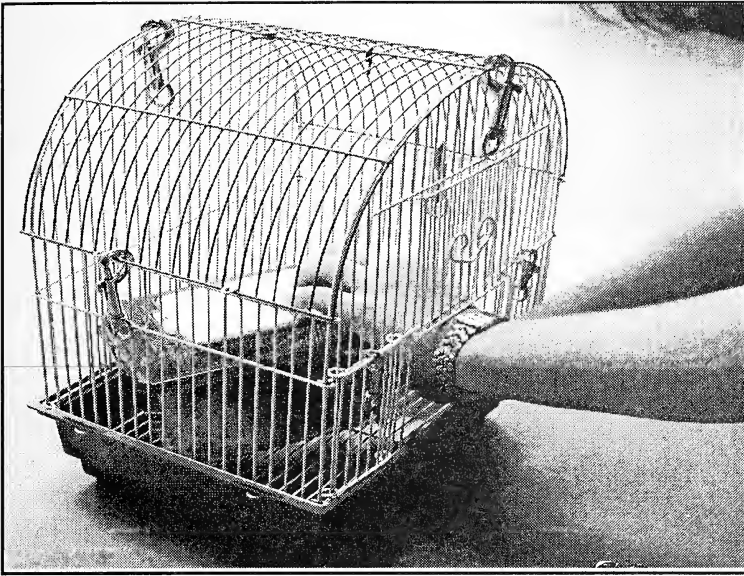


Figure 5 – Glider is removed from small carrier inside display cage
(photo by Kristen Schmid)



Figure 6 – Glider in temporary display cage *(photo by Kristen Schmid)*

Although this method sounds complicated, it has a rewarding advantage. Children participating in our programs are able to see our sugar glider up close, an animal that is not easily viewed from behind exhibit glass, and explore his behavior, adaptations and natural beauty.

Legislative/Conservation Update

Compiled by Georgann Johnston
Legislative Advisor
Sacramento, CA



USFWS Biologists Recommend Sage-Grouse Not Get ESA Listing

Based on an extensive review of scientific data and analysis, senior regional U.S. Fish and Wildlife Service (USFWS) biologists have recommended that the Service not list the greater sage-grouse (*Centrocercus urophasianus*) as a threatened or endangered species under the Endangered Species Act across its range. The regional directors and senior scientists just completed the written scientific analysis and recommendation, which is currently being finalized by technical staff before being made available to the acting USFWS Director Steve Williams. He will review the recommendation before making a decision on whether to propose the species for listing by the first part of 2005.

The USFWS received three petitions to list the greater sage-grouse range-wide as endangered or threatened. In April 2004, the Service announced that the petitions presented substantial information that listing may be warranted and began a full status review of the greater sage-grouse. During the status review of the species, the Service is evaluating all the available scientific and commercial information on greater sage-grouse and their habitats, including all information provided by State and Federal agencies and Tribes, as well as information provided through the public comment process.

Currently, state fish and wildlife agencies have jurisdiction to manage greater sage-grouse by developing conservation plans to address issues such as habitat loss, fragmentation, and degradation and to identify opportunities for habitat restoration and enhancement. Current sagebrush habitat is estimated at 100-150 million acres - 54% of historic acreage. Greater sage-grouse are currently estimated to number from 142,000-500,000 individuals. Their populations declined an average of 3.5% per year from 1965 to 1985. Since 1986, however, populations in several states have increased or generally stabilized and the rate of decline from 1986 to 2003 slowed to 0.37% annually for the species across its entire range. Greater sage-grouse are currently found in Washington, Oregon, California, Nevada, Utah, Colorado, Idaho, Montana, North Dakota, South Dakota, and Wyoming.

Source: USFWS Press Release 4 December 2004

Study Shows Temperature Influences Sex of Birds, Not Just Reptiles

Australian researchers studying the unusual habits of the Australian brush turkey (*Alectura lathami*) have found that more female birds hatch at high incubation temperatures while more males hatch when the temperatures are lower. Brush turkeys are the first known birds to regulate the sex ratio of their chicks using temperature.

Brush turkeys belong to a group of 22 species known as Megapodes that do not sit on their eggs. Rather, they use environmental heat sources such as composting leaf litter for temperature control during incubation. After the female lays the eggs, the male tends the composting mound using a temperature sensor in his upper beak to keep the mound between 30-37°C (85-96°F). The male will check the temperature inside the mound at least once a day. If the temperature is too high he will remove some of the leaf litter, if it is too low he will add or compact the litter.

The researchers found that equal numbers of male and female chicks hatched at the average mound temperature of 34°C (93.2°F). More males hatched when the mound was at a lower 31°C (87.8°F). and more females hatched at a higher 36°C (96.8°F). The researchers also concluded that, unlike reptiles, brush turkey incubation temperature does not determine the sex of an egg but rather affects which eggs will survive. Source: News in Science, Australian Broadcasting Co. 24 November 2004

China Bans Eating Civets

The Chinese Federal Health Ministry has banned the slaughter and cooking of civets (*Paguma larvata*) for human consumption. The announcement came one week after the government said 70% of civets tested in the southern province of Guangdong were carrying the Sudden Acute Respiratory Syndrome virus. The civets found in this province are captive bred specifically for human consumption. Wild civets in the northern and eastern areas of China did not test positive for the virus.

China's ban on eating civets was enacted about three months after the United States government announced a health embargo on live or dead civets imported from China into the U.S. The major exemption is for civet products processed so as to render them non-infectious, which would allow for continued imports of civet fur garments.

China has previously destroyed as many as 10,000 civets who were raised for sale at live markets. Because of the connection to SARS, civet fur exporters have often relabeled their pelts as from "Lipi-cats" and "genottes." *Source: Animal People: News for People Who Care About Animals November 2004*

Mexico Plans Preservation of Thousands of Acres of Rain Forest

The Mexican government and a U.S. based non-governmental organization, The Nature Conservancy, have agreed to expropriate thousands of acres of tropical forest on the Yucatan Peninsula. The \$3 million (US) accord, paid for with both government and private funds, will ensure the protection of 370,000 acres (half the size of Rhode Island) in the Calakmul Biosphere Reserve.

The biosphere reserve is spread out over 1.8 million acres and is the largest intact tropical forest in Mexico and the largest contiguous tropical forest outside of the Amazon. The reserve is a UNESCO World Heritage site that is home to Mayan ruins and hundreds of plant and animal species, including the largest jaguar (*Panthera onca*) population outside of the Amazon.

The expropriation will annex the land into the biosphere's "core" conservation zone. Previously, the 370,000 acres was located in a buffer area not subject to the strictest land-usage rules. Since it has lacked money to expropriate conservation lands on its own, Mexico's government has begun to form partnerships with private organizations, such as The Nature Conservancy, to acquire property.

The Calakmul biosphere hosts more than 350 bird species, 90 mammal species including pumas (*Puma concolor*) and howler monkeys (*Alouatta palliata*), and is a habitat for three billion migratory birds each winter. The Nature Conservancy also says that about 1,600 plant species - more than half of all the species in the Yucatan - live in Calakmul. *Source: SignonSanDiego.com 12 November 2004*

Detroit's Zoo Elephants Headed for California Sanctuary

Under an agreement announced 4 December by the Detroit Zoo, Columbus Zoo, San Antonio Zoo and the American Zoo and Aquarium Association, Wanda and Winky - the two aging elephants at the heart of a "Sanctuary vs Zoo" controversy - will be sent to the Performing Animal Welfare Society's sanctuary about two hours east of San Francisco. The agreement ends more than six months of efforts by Detroit Zoo director Ron Kagan to find more room and a milder climate for the 46-year-old Wanda and 51-year-old Winky.

"We appreciate the clear commitment to doing what is best for these two elephants by the Columbus Zoo, San Antonio Zoo and the AZA," Kagan said in a statement released Friday by the AZA. Kagan's voluntary decision to give up the elephants primarily on ethical grounds drew praise from the public and animal welfare groups, although was fought by the AZA whose protocol called for the elephants to be sent to another AZA-accredited zoo rather than a primate sanctuary. AZA had told Detroit to send the animals to the Columbus Zoo but Kagan noted that the Columbus weather and zoo conditions would not be a substantial improvement for the animals. Detroit's plan to send the animals to the California Sanctuary was complicated by the fact that Wanda was on long-term loan from the San Antonio Zoo which supported the AZA's position on the matter. Kagan said he did not want to separate the elephants, who have spent the past 10 years in Detroit.

Defying the AZA's order could have resulted in possible sanctions for the Detroit Zoo, including loss of its accreditation, something Kagan had said he might be willing to risk. Keeping Wanda also could have exposed the Detroit Zoo to criminal repercussions.

A break in the impasse came when a test indicated that Wanda may have been exposed to endotheliotropic herpes virus, which would not be detrimental to her health but could be fatal to young elephants exposed to it.

"Since the Columbus Zoo has an active elephant breeding program and (a) 9-month-old calf, we could not accept Wanda," Gerald Borin, executive director of the Ohio zoo, said in a statement released Friday by the AZA.

Because other accredited zoos with breeding herds might have similar concerns, the zoos and the AZA re-evaluated the case and decided both Winky and Wanda could be transferred to the PAWS Sanctuary in San Andreas, CA. Of its 2,300 acres, about 100 acres are set aside for elephants. The San Antonio Zoo has subsequently donated Wanda to the Detroit Zoo in order to keep both animals together. The Elephant SSP also declared both animals non-essential to the captive population. Winky and Wanda will be moved as soon as the weather permits.

The PAWS Sanctuary received its sixth elephant from the San Francisco Zoo last month amid public protests that the city's exhibit space wasn't large enough. A second elephant from San Francisco will be sent to the sanctuary later this month, said Deniz Bolbol, a spokeswoman for Mill Valley, California-based In Defense of Animals, an animal welfare group that lobbied San Francisco officials to relocate the elephants. Thirty-eight-year-old Tinkerbelle, the lone Asian elephant at the San Francisco Zoo, has already moved into her new home at a sanctuary in the foothills of the Sierra Nevada Mountains. *Source: Excerpted from the Detroit Free Press and Associated Press stories of 12-04-04.*

Studies Show Zoo Elephants Live as Long as Those in the Wild, but Breeding Problems Exist
Elephants in zoos are living as long as those in the wild, but their population in captivity is dwindling because it is so difficult to breed them, according to studies reported at the International Elephant Foundation's research symposium held in Fort Worth, TX, and also published in a recent issue of *Zoo Biology*.

The study of elephant life spans concluded that the average life expectancy of Asian and African elephants in captivity in North America is 45 years and 33 years, respectively. Those figures are similar for elephants in the wild. Earlier studies that reported that captive elephants lived only about 20 years on average used data only from animals that had died, said Bob Wiese, the Fort Worth Zoo's director of animal collections. Wiese's study examined dead and living elephants, including a 77-year-old Asian and a 53-year-old African elephant in North America.

RaeLeann Smith, a spokeswoman with the animal advocacy group In Defense of Animals, accused zoos of "playing with numbers." She said elephants in the wild do not suffer from the reproductive, digestive and foot and joint problems that afflict animals in captivity. "Our concern is that elephants are highly intelligent, social animals and zoos are unable to meet their physical and psychological needs," Smith said.

There are up to 30,000 Asian and half a million African elephants in the wild, according to the Foundation. In captivity worldwide, there are up to 16,000 Asian - including as many as 300 in North America - and up to 700 African elephants - including 230 in North America.

Breeding elephants in captivity has proven difficult. There have been three successful Asian elephant births so far in 2004 in zoos accredited by the American Zoo and Aquarium Association, but there were none in the previous two years. Last year, the Fort Worth Zoo's 30-year-old Asian elephant went into premature labor and the calf was euthanized. *Source: Associated Press 12-04-04*

Rare Hawaiian Bird Dies from Avian Malaria

An extremely rare Hawaiian bird has died in captivity, possibly marking the extinction of its species only 31 years after it was first discovered. The Po'o-uli (*Melamprosops phaeosoma*), which was suffering from avian malaria, belonged to one of the world's most threatened bird families - the Hawaiian honeycreepers. Thirteen other honeycreeper species have already died out, in what some are calling Hawaii's extinction crisis. Many species are in decline due to habitat loss and introduced predators.

The Po'o-uli (*Melamprosops phaeosoma*) was first discovered in 1973, in Maui's Ko'olau Forest Reserve. Even then it was desperately endangered, with an estimated population of fewer than 200 individuals. Since then, its decline has been steep. In 1995, fewer than seven birds were known and by 1997 that number had dropped to just three individuals. However, none of these three remaining Po'o-uli seemed keen to breed, and each maintained a distinct home range. In 2002, one of the three individuals was caught and placed in the range of another, in an attempt to get them to mate. But the plan failed and the introduced bird soon left the area. The following year conservationists decided to take drastic action and capture all three birds to begin a captive breeding programme. But this proved difficult, and only one bird was caught in September 2004, which is the individual that has just died. A hunt began for the two remaining birds - believed to be a male and a female - but they have not been seen for nearly a year and hopes for their survival are slim. *Source: BBC News 12-04-04*

Institutions wishing to advertise employment opportunities are asked to send pertinent data by the 10th of each month to: Opportunity Knocks/AKF, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054. Please include closing date for positions available, and when setting these dates keep in mind that because of bulk-mail, most readers do not receive their AKF until the middle of the month or later. There is no charge for this service and fax or e-mail listings of positions which become available close to deadline are accepted. Our Fax is (785) 273-1980; e-mail: akfeditor@zk.kscowmail.com< Listing must be sent as MS Word attachment. To post a position on the AAZK website, have listing to email address above by the 25th of the month for posting on the first day of the following month. We are no longer located at the Topeka Zoo, so please note new address to avoid delays in processing.

Zoo Keeper/Wildlife Educator - McCarthy's Wildlife Sanctuary, Inc., West Palm Beach, FL
Send resumé to: Mark McCarthy, McCarthy's Wildlife Sanctuary, Inc., 12943 61st St., N., West Palm Beach, FL 33412 or email to info@mccarthyswildlife.com. For more information about our organization, visit our website at www.mccarthyswildlife.com< Looking for a dependable person to fill full-time position as a zoo keeper/wildlife educator. **Position available until filled.** **Responsibilities:** daily care of animals and enclosures, compound maintenance, and wildlife presentations. **Requirements:** Weekends are a must. Must have work-related experience with mammals (including big cats), birds (especially raptors), reptiles and wildlife rehabilitation. Applicant must be a nonsmoker, have a professional appearance, good public speaking and people skills, an enthusiastic attitude, and a sense of humor. Should be able to tolerate hot Florida summers and willing to work in all weather conditions. Must be good with children of all ages. A valid driver's license is needed. Animal-related education preferred, but not necessary. Salary based on experience.

Tiger Trainer Position – Six Flags Great Adventure, Jackson, NJ
Applicants should submit cover letter and resumé, professional letter of recommendation, and non-returnable full body photograph to: Six Flags Great Adventure, ATTN: Human Resources, P.O. Box 120, Jackson, NJ 08527, Or Fax to 732-928-6779. **Posting is open until position is filled.** Six Flags Great Adventure's Temple of the Tiger has an immediate opening for a fulltime year-round Tiger Trainer Position. Six Flags Great Adventure provides our guests with a unique free-contact educational presentation showcasing the tiger's awesome capabilities. Temple of the Tiger plays a leading role in interactive education by promoting the conservation of these amazing animals. **Requirements:** A college degree in a related field (zoology, psychology, biology, etc.) is preferred as well as big cat experience. Working in and around water depths of up to 5ft. is also required. The chosen applicant must possess strong verbal, cognitive, and physical skills to be part of this unique trade. Dedication, enthusiasm, and teamwork are essential elements to this program. Six Flags offers great benefits and competitive wages. Six Flags is an Equal Opportunity Employer and Drug Free Workplace.

Executive Director - Sioux Falls Area Humane Society, Sioux Falls, SD
Interested candidates should send a resumé to: SFAHS Board of Directors – Personnel Committee c/o T. Dougherty, 202 Pinchurst Drive, Sioux Falls, SD 57108; TrishD@sio.midco.net< The Sioux Falls Area Humane Society (www.sfhumaneociety.com), serving the Sioux Falls and surrounding region since 1919, seeks an experienced shelter director to oversee operations at our facility. We are an open admission facility that takes in abandoned, abused, homeless, and unwanted animals that need tender loving care until they can find a permanent home. Our mission is to help these animals find their new permanent home, prevent animal cruelty, and educate people on the humane treatment of animals. The SFAHS is a non-profit organization funded largely by contributions, donations, fees for services and our endowment fund. **Requirements:** Successful candidates will have an Associate's or Bachelor's Degree and a strong background in the humane field with at least three (3) years of experience in a shelter environment. Three to five years of management experience required with a solid knowledge of human resource management and budgeting. A high level of professionalism and strong customer skills are required. Euthanasia certification strongly preferred. Salary Dependent on Qualifications. EOE

Keepers and Interns - Paws Exotic Animal Sanctuary, Galt, CA
With three (3) Sanctuaries located just south of Sacramento, CA. No heavy rush hour traffic & a reasonable cost of living in Northern CA. **All positions open until filled.** Send your resumé & at least three (3) verifiable work references to: PAWS, Attn: New Keepers, P.O. Box 849, Galt, CA. 95632. Or Fax 209-745-1809. Or e-mail info@pawsweb.org< We need your help taking care of our permanent residents. **Requirements:** If you are reliable, dedicated & self motivated, have experience with wild, exotic or large domestics, then we want to hear from you. We offer competitive wages & quality of life.

No experience or limited availability, we are looking for a few good interns. Send us a resumé or a letter telling us a little about yourself & why you want to be a zookeeper or intern at Paws. Include three (3) professional references and when you are available & for how long, to: Paws, Attn: New Interns, P.O. Box 849, Galt, CA. 95632. Or Fax 209-745-1809. Or e-mail info@pawsweb.org. Housing provided. To find out more about our four legged friends & us go to our web site at www.pawsweb.org<

Zookeeper – The Living Desert, Palm Desert, CA

Please submit a resumé with cover letter by **15 February 2004** to Kim Clark – Assistant Curator, The Living Desert, 47-900 Portola Ave, Palm Desert, CA 92260. The Living Desert is a medium-sized zoo located in the Palm Springs area of California. Just two hours from the Pacific Ocean, two hours from Big Bear Ski resort, and only one hour away from beautiful Joshua Tree National Park. We are currently accepting applications for keeper positions. All positions are full-time with paid benefits. This is an excellent opportunity for individuals interested in working at a growing, AZA-accredited institution. **Requirements:** Applicants must be able to lift 50 pounds and work weekends and holidays.

Aviculture Internship - International Crane Foundation, Baraboo, WI

Applicants should submit a cover letter, resumé, and three (3) letters of recommendation to Kelly Maguire-Aviculture Internships, International Crane Foundation, P.O. Box 447, Baraboo, WI 53913. Final candidates will be notified for a phone or in-person interview. Stipend is \$375/month plus housing provided on site. ICF is a non-profit conservation organization that works worldwide to save the fifteen species of cranes and their habitat by providing experience, knowledge and inspiration to people. Aviculture interns receive hands-on training in the care and management of endangered cranes. †Interns will be exposed to general crane husbandry, handling techniques, health care, incubation, artificial insemination, behavior, and breeding management. **Responsibilities:** vary by season and include daily cleaning, food provisions and other care of adult cranes and chicks comprise half of the job. Other tasks include annual facilities maintenance, pen repair, video monitoring, chick rearing and assisting full-time staff with projects. **Requirements:** Two years of college or other practical experience with knowledge of and interest in bird conservation. Persons with 4-year college degrees are preferred. Must be able to carry a 50-pound feed bag and do hard work outdoors, in all weather conditions.

Big Cat Internship - Tiger Creek Wildlife Refuge (TCWR), Tyler, TX

For more information and to download an application packet, see www.tigercreek.org < **Responsibilities:** The Big Cat Internship involves Animal Care Apprentice and Public Education. This is a 90-day position (by 4 quarters/terms) allowing one to gain experience in the zoological field. Job duties include cleaning, diet preparation, light maintenance, educational tours, etc. Interns are responsible for the daily cleaning and health monitoring of a number of exotic feline species including but not limited to: tigers, lions, leopards and pumas. Big Cat Internship opportunities also include working in environmental education with schools and scout groups in a variety of learning activities. You will present short guided lessons on animal care techniques, conservation and rescue methods, backgrounds on the big cats and much more. This wide variety of teaching opportunities and educational training provides the intern with an exciting array of new skills and experiences. Training is provided by the staff. **Requirements:** At least two (2) years of undergraduate college work in wildlife management, education, biology, or related field. If no college experience then one (1) year in related field required. Applicants must be at least 20 years of age. Animal care experience preferred. These positions require motivated persons with a degree focus in biology/zoology and some experience with a related organization. Housing is provided. Interns provide a strong commitment to the refuge, with a six day work week and light duties on Sundays.

Environmental Interpretation and Wildlife Care Internship – Trailside Museums and Wildlife Center, Bear Mountain State Park, Bear Mountain, NY 10911-0427. Contact: Jennifer Verstracte at (845) 786-2701 ext. 278 or 265; email – clayne.keith-feller@oprhp.state.ny.us < Start Dates: Summer internship mid-May through mid-August; Fall internship late-August/early September through early November. Internship is unpaid, but provides knowledge and experience; written evaluation gladly given. Possible course credit if intern can arrange it. Interns will work at least three (3) days a week, including one weekend day. No housing available. We reimburse full payment for required pre-exposure rabies series. Qualifications: Enthusiasm, comfortable handling animals, motivated to learn. Must be 18 or older; preference given to college student looking for experience in the care of wildlife and in environmental interpretation. **Responsibilities:** 1) Provide care for permanently injured or orphaned park wildlife (mammals, birds, fish, amphibians and reptiles) in zoo setting. Under the supervision of a Senior Zookeeper will prepare food and diets, maintain enclosures and exhibits, and provide enrichment; 2) Interact with the public answering questions, interpreting exhibits, possibly developing and offering short interpretive talks.

Big Cat Internship – Wildlife on Easy Street, Tampa, FL

For more information contact Scott Lope at 813-323-5991 or email at catfoto1@aol.com < Two (2) positions available for six-month internship at TAOS accredited non-profit big cat sanctuary. www.wildlifeoneasystreet.com < **Responsibilities** (include but are not limited to): daily husbandry, exhibit cleaning, diet preparation, feeding, operant conditioning and behavioral enrichment for the following species: lions, tigers, leopards, cougars, lynxes, servals, caracals, bobcats, lemurs and other exotic animals. We provide invaluable hands-on experience, on-site housing and utilities, safety training and educational materials. Advanced training and long-term employment opportunities exist for the right candidates. **Requirements:** applicants must be willing to work six days a week, some holidays and follow strict safety guidelines. Hard work ethic and love of animals more important than degree.

Internships - The Florida Aquarium, Tampa, FL

Internships are available in Animal Health, Animal Programs and Husbandry departments. Internships available year-round for varying lengths of time and can be tailored to the individual student's needs. Internships are unpaid but provide valuable hands-on experience. Interested persons should send resumé to: Human Resources, 701 Channelside Dr., Tampa, FL 33602. For more information visit our website at www.flaquarium.org

Responsibilities: food preparation, feeding, cleaning enclosures, assist with medical procedures, animal observations, daily record keeping, enrichment activities, assist with training sessions and shows.

Zoo Design Internship - ZooLex, Vienna, Austria

In 2002 the ZooLex Zoo Design Organization started to offer internships. Carlyn Worstell was our first intern. She finished her internship with the ZooLex Zoo Design Organization in September 2003 and is now working with the Wildlife Conservation Society at Bronx Zoo. We offer internships in Vienna, Austria. Interns who stay for a few weeks only, mainly work on the ZooLex Gallery. Interns who stay longer also complete a research project. You will find more information on ZooLex internships here: <http://www.zoolex.org/intern.html> ZooLex Zoo Design Organization is a non-profit organization registered in Austria. ZooLex runs a professional zoo design website and distributes a newsletter. More information and contact: <http://www.zoolex.org/home.html>

SOS Rhino Seeks Volunteers

SOS Rhino is looking for volunteers interested in helping us in our efforts to save the Sumatran rhinoceros. Our Borneo Team is studying the demographics of the remaining animals in Tabin Wildlife Reserve to determine when patrol units, habitat protection, or translocation may play a role in the rhinos' survival. Please visit SOS Rhino's web site for detailed information: <http://www.sosrhino.org/programs/volunteer.php> Or contact Cindy Salopek, Projects Associate/SOS Rhino via e-mail at: cindy@sosrhino.org

Volunteer Positions - Orangutan Health Project in Sumatra, Indonesia

A research project, now in its 5th year, aims to discover more about the special behaviors and ecological conditions necessary for the maintenance of health in wild orangutans. MVDr. Ivona Foitova leads a truly international team of scientists in an attempt to improve the environment of captive orangutans, and the chances of work on the ground also helps to guard the forest against the devastating impacts of logging on the natural habitat of one of the last great apes. **Responsibilities:** volunteers will be part of the team helping in every way - from simple data entry and getting supplies for our base, to locating, counting or following wild orangutans in the forest of North Sumatra. This may not always be enjoyable, but it will certainly be memorable. For more information on the project and our volunteer program, log on to: <http://www.orangutan-health.org> or email us at: orangutanhealth@indo.net.id

Volunteer Positions Available - Munda Wanga's Wildlife Park and Sanctuary - Zambia

For more information contact Lee Stewart through e-mail: sanctuary@zamnet.zm or take a look at our website: <http://www.mundawanga.com> Three week volunteer opportunities available to keen and enthusiastic people looking to gain hands-on experience working at an African wildlife park and sanctuary. Species that you could be working with include lions, tigers, wild dogs, various primates, an American black bear and a baby elephant. Volunteer duties will vary hugely upon volunteer's interest, previous experience and the Park and Sanctuary's priorities, which will vary according to the time of year and what construction/relocation programmes are on at the time. Longer volunteer periods are available depending upon volunteer's experience.

More Zoo vacancies can be seen by visiting:

American Zoo and Aquarium Association - Job Listings

<http://www.aza.org/JobListings/>

American Association of Zoo Keepers - Opportunity Knocks

http://www.aazk.org/aazknew/animalKeepersForum/opportunity_knocks.asp

European Association of Zoos and Aquaria - Vacancies

<http://www.eaza.net>

Berufsverband der Zootierpfleger e.V

<http://www.zootierpflege.de>

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GREENlines Issues

Nine Catalina Island Foxes Released

Nine captive-bred endangered Catalina Island foxes (*Urocyon littoralis catalinae*) were released into the wild in late November according to a report in the *Long Beach Press-Telegram*. "The Catalina Island fox, which was recently listed as an endangered species, is a subspecies of the gray fox, and endemic to the island. In 1999, the foxes were devastated by a deadly virus that ecologists suspect was carried in by a domestic dog. The canine distemper virus swept through the island, causing the fox population to rapidly plummet from some 1,300 to just about 100." Through the efforts of the Catalina Island Conservancy's captive breeding and release program, over the past four years, the population has tripled to about 300, which is considered by conservationists to be a sustainable level. Of four such programs on the Channel Islands, the one in Catalina is the first to declare success. *Source: GREENlines Issue #2239 11-24-04*

Oregon Works to Relocate Rare Columbian White-tailed Deer

"State wildlife officials are set to trap and transplant some rare Columbian white-tailed deer (*Odocoileus virginianus leucurus*) around the southern part of the state in an effort to re-establish the former endangered species," reports the *Associated Press*. The Columbian white-tailed deer was removed from the endangered species list last year and this is the latest in the state's efforts to restore the deer. "Biologists plan to focus on capturing family clusters of white-tails on private lands, then releasing them on other low-elevation oak or forestlands where the landowners are cooperative." *Source: GREENlines Issue #2237 11-22-04*

Red List Documents 15,589 Threatened and Endangered Species

"More than 15,000 species, from sharks to frogs to fir trees, are facing extinction and the total is rising faster than ever before," reports *Reuters New Service*. The IUCN World Conservation Union released its 2004 "Red List" of endangered species at the beginning of its World Conservation Congress held in Bangkok in November 2004. According to IUCN, one in three amphibians, almost half of all freshwater turtles, one in eight types of bird and a quarter of all mammals are at risk of extinction. The numbers may be higher, as scientists learn more about species in tropical forests, marine and freshwater habitats. "Although 15,589 species are known to be threatened with extinction, this greatly underestimates the true number as only a fraction of known species have been assessed," said Craig Hilton-Taylor, the IUCN's "Red List" program officer. *Source: GREENlines Issue #2234 11-17-04*

Scientists Have Found Hundreds of New Species in the World's Oceans

"Marine scientists say they have discovered 178 new species of fish and hundreds more new species of plants and other animals in the past year, raising the number of life-forms found in the world's oceans to about 230,000," reports the *Associated Press*. The results are from the Census of Marine Life, a 10-year effort that is in its fourth year of research. More than 1000 scientists from 70 countries are participating in the effort. *Source: GREENlines Issue #2239 11-24-04*

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**The Journal of the American
Association of Zoo Keepers, Inc.**

FEBRUARY 2005

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Phone: 1-800-242-4519 (U.S.) 1-800-468-1966 (Canada) FAX (785) 273-1980

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Managing Editor: Susan D. Chan • **Associate Editors:** Kayla Grams, Grand Junction, CO & Mark de Denus, Reid Park Zoo • **Enrichment Options Coordinators:** Dawn Neptune, Utah's Hogle Zoo & Rachel Cantrell, Disney's Animal Kingdom • **Legislative/Conservation Outlook Column Coordinator:** Georgann B. Johnston, Sacramento, CA. • **ABC's Column Coordinator:** Diana Guerrero, Big Bear Lake, CA • **Reactions Column Coordinator:** William K. Baker, Jr., Little Rock Zoo

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AAZK Executive Director: Ed Hansen, AAZK, Inc., Topeka KS

also serves as AAZK Liaison to the American Zoo & Aquarium Association (AZA)

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AAZK Enrichment Notebook 3rd Edition - Lee Houts, Folsom City Zoo

Resources for Crisis Management in Zoo & Other Animal Care Facilities, Vol. 2 - Susan D. Chan, Topeka, KS



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30th Anniversary
1974 - 2004

About the Cover.....

*This month's cover features the Grey Wolf or Timberwolf (*Canis lupus*) drawn by Pete McDonnell for RESOURCES, Art for Environment's Sake, Environmental Task Force, Washington, DC. Generally the wolf is a grizzled grey but color varies from white to black. The ears are erect and the tail is bushy and black tipped. The male is larger than the female and average weight is 55-130 pounds. They prefer open tundra and forests. Although they once inhabited most of North America, now distribution occurs in only Alaska, Canada, and parts of the U.S.A. Human fear, superstition, and outright hatred of this animal decreased its population drastically and eradicated it from 50% of its former range. The wolf is a very social animal that mates for life and lives in packs of 2-15. The strongest male is usually the pack leader; all members of the pack care for the young which helps unite the pack. An average of seven pups are born to each female in April-June after a two-month gestation period. Usually hunting at night, they feed primarily on large mammals by chasing down their victims either slashing tendons or driving it back to waiting pack members. A wolf has a tremendous appetite and can eat 12-13 pounds of meat at a meal. Even though they kill only to survive, studies show that wolves play a key role in drastically decreasing the number of ungulates, sometimes beyond the rate of replacement, in any given area. The wolf's only important predator is man. Thanks, Pete!*

Animal Keepers' Forum publishes original papers and news items of interest to the animal keeping profession. Non-members are welcome to submit articles for consideration. Articles should be typed or hand-printed and double-spaced. Authors are encouraged to submit their manuscripts on a disk as well as in hard copy form. Manuscripts submitted either on disk or electronically as attachments to an email should be submitted in Microsoft WORD. All illustrations, graphs, charts and tables should be clearly marked, in final form and should fit in a page size **no greater than 5.5" x 8.5"** (14cm x 22cm). Literature used should be cited in the text (Brown, 1986) and alphabetically in the final bibliography. Avoid footnotes. Include scientific name (as per *ISIS*) the first time an animal name is used. Thereafter use common name. Use metric system for weights and measurements (standard equivalents may be noted in parenthesis). Use the continental dating system (day-month-year). Times should be listed as per the 24-hour clock (0800, 1630 hrs. etc.). Glossy black and white or color prints (minimum size 3" x 5" [8cm x 14cm]) are accepted. Clearly marked captions should accompany photos. Please list photo credit on back of photo. Photographs may be submitted electronically as either JPEG or TIFF file attachments.

Articles sent to *Animal Keepers' Forum* will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for *AKF*. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 1-800-242-4519 (US); 1-800-468-1966 (Canada); FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com

**Deadline for each regular issue is the 10th of the preceding month.
Dedicated issues may have separate deadline dates and will be noted by the editor.**

Articles printed do not necessarily reflect the opinions of the *AKF* staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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E-Mail Addresses: You may reach Barbara Manspeaker at AAZK Administrative Offices at: aazkoffice@zk.kscoxmail.com You may reach Susan Chan and *Animal Keepers' Forum* at: akfeditor@zk.kscoxmail.com

AAZK Website Address: www.aazk.org

BFR Website: <http://bfr.aazk.org>

Scoops & Scuttlebutt



Recharter Packets Return Deadline Approaching

All Chapter officers are reminded that annual Recharter Packets must be returned to AAZK Administrative Offices **by 1 March 2005** to avoid paying the \$100 late fee. If you have questions about filling out your forms, contact Barbara Manspeaker at 1-800-242-4519 (U.S.) or 1-800-468-1966 (Canada). You can also reach Barbara via email at aazkoffice@zk.kscoxmail.com. Make certain when you return your packets that you have completed all required information and have included a check for your recharter fee. Make a copy for your Chapter's records. Return of these forms is part of the Association's obligation to the Internal Revenue Service under our 501(c)(3) nonprofit tax-exempt status. Failure to have forms returned by all of AAZK's chartered Chapters puts the organization's tax-exempt status in jeopardy, so your full cooperation is greatly appreciated.

Bowling For Rhino (BFR) Reminders

New for 2005: The first \$120,000 raised each year from Bowling For Rhinos will go to Lewa Wildlife Conservancy (previously was \$100,000) in Kenya. The remainder will be sent to the Indonesian Parks through the International Rhino Foundation (IRF) & Minnesota Zoo's Adopt-A-Park Program. If we reach the \$200,000 mark, any amount above \$200,000 will be split 75/25 to Lewa/Indonesian Parks.

BFR will soon be registered with missionfish.org. They are linked to EBay. When people sell items on EBay, they have the option of donating all or part of the selling price to registered not-for-profit organizations. So keep BFR in mind when selling on EBay!

Ros Hill has graciously agreed to design a BFR t-shirt for us. Chapters will have the option of using his design for their BFR event or using their own design. See <http://www.hillustrations.com> to view his current artwork.

FOUR TRIP WINNERS! The top four money raisers for BFR now win trips. There are two trip winners to Lewa Wildlife Conservancy in Kenya, and now two trip winners to visit the Indonesian Parks (sponsored by IRF). To be eligible to win a trip, you must be an AAZK member in good standing and turn money in by the September 1st deadline. For the Indonesia trip, you must also raise a minimum of \$1,000 to be eligible.

PJC Zoo Animal Technology Program / UWF Zoo Science

The Pensacola Junior College zoo animal technology program is now accepting applications for entry in August 2005. This is a two-year associate of science degree program offered as a cooperative effort of PJC and The ZOO in Gulf Breeze, FL. Our program includes general education, a comprehensive series of academic courses in animal biology, specialized zoo topic courses, and practical animal care, medical husbandry, and exhibit repairs skills courses. The degree articulates into the Zoo Science B.S. program at University of West Florida (also in Pensacola) if desired. Application packets may be obtained from the PJC biology department secretary at (850) 484-1168 or on the web at <http://itech.pjc.edu/jkaplan/zooschool/> and further information is available by contacting Joyce Kaplan, PJC zootech director, at jkaplan@pjc.edu or (850) 484-1164.

Otter Training Video Available

Training Video Available: As part of the Otter SSP three-year action plan, a training video for otters has been produced. The video shows the basic training skills to achieve several behaviors such as target, station, scale, crate and separate. The video is available for \$10.00 in either VHS or DVD. Please contact Jennifer Compston at the Columbus Zoo and Aquarium at jennifer.compston@columbuszoo.org (best way) or 614-724-3449.

Rhino International E-Zine Available

RhiNEWS, the e-zine bringing you news and views on rhino conservation from around the world, powered by mi-site. Please help our campaign by distributing RhiNEWS to anyone who might be interested. New readers can subscribe here to future issues http://www.savetherhino.org/subscribe_to_rhinews/free_online_newsletter.phtml

CHCI Seeking Summer Apprentices

The Chimpanzee & Human Communication Institute (CHCI) is currently taking applications for their 10-week Summer Apprentice Program. Graduates, undergraduates, and post-graduates from various academic backgrounds (e.g. Anthropology, Biology, Psychology, Linguistics, Philosophy, etc.) are encouraged to apply. This program is open to students from all universities and post-graduates. The dates of the program are June 19 to August 26, 2005.

The research at CHCI involves a group of four chimpanzees who use the signs of American Sign Language (ASL). Three of the four, Washoe, Tatu, and Dar, were part of the cross-fostering research that began with Drs. R.A. & B.T. Gardner. Each chimpanzee was raised in an enriched environment in which his or her human family members used only ASL, much like the environment in which a deaf human child grows up. The fourth chimpanzee, Loulis, was adopted by Washoe in 1978 and learned his signs from other chimpanzees as a focus of research done by the co-directors of CHCI, Dr. Roger and Deborah Fouts. Currently, the chimpanzees reside at the CHCI on the campus of Central Washington University in Ellensburg, WA in a large state-of-the-art facility.

Apprentices are at the institute daily — cleaning enclosures, preparing meals and enrichment, making observations of the chimpanzees, and participating in one or more research projects. The first week is intensive training in laboratory jobs and chimpanzee behaviors. The philosophy of CHCI is that the needs of the chimpanzees come first. Apprentices are trained in humane care and research techniques. After several weeks each apprentice becomes more autonomous and has responsibilities in the research project.

The program fee is \$1800 and there is a non-refundable \$25 application processing fee. This does not include housing and transportation. Inexpensive housing is available on campus. A course in ASL is highly recommended but not required. For more information on the program and the application please see our web page at www.chci.org or contact Dr. Mary Lee Jensvold, CHCI, CWU, Ellensburg, WA 98926 maryleejensvold@hotmail.com <The deadline to apply is 25 March, 2005.

Indianapolis Zoo Announces World's Largest Animal Conservation Award

The Indianapolis Zoo has announced the establishment of the Indianapolis Prize, an award given every other year to an individual who has made significant strides in animal conservation efforts. The first recipient of the \$100,000 award will be announced at a gala ceremony in Indianapolis scheduled for September of 2006. The Indianapolis Prize represents the largest individual monetary award for animal conservation in the world and will be given as an unrestricted gift to the honoree. The Eli Lilly Company has pledged startup funding for the Indianapolis Prize and the recipient will also receive the Lilly Medal.

Nominees must have accomplished an individual achievement or series of achievements that have resulted in a demonstrable positive impact on an animal species or group of species that is likely to improve the species' likelihood of long-term sustainability. It must be demonstrated that this improvement in long-term sustainability was the result of direct and specific actions of the nominee, and the impact of achievements under consideration must be clearly recognizable when evaluated by the Nominating Committee and Jury whose members represent experts in the scientific and conservation fields. If you'd like a nominating packet or for more information, just send an email to: Chair of the Indianapolis Zoo Board of Trustees Myrta Pulliam at mpulliam@indyzoo.com

AAZK Data Forms Available

Data transfer forms are available gratis to zoological institutions by contacting the AAZK Administrative Offices at 1-800-242-4519 (U.S.) or 1-800-468-1966 (Canada). These include the original Animal Data Transfer Form (ADT), the Enrichment Data Transfer Form (EDTF), and the Operant Conditioning Data Transfer form (OCDTF). We encourage all zoological institutions to utilize these forms when shipping an animal to another facility. Having this information travel with the animal, and made available will help ensure that receiving staff has all the pertinent data on that animal to help make the transition to its new home easier, and hopefully, less stressful. With the greater emphasis on enrichment and training at all AZA-accredited facilities, this information will prove especially important in providing continuity and consistency when an animal is shipped. Encourage your facility to make use of this important, and free, resource provided to the zoological community as a professional courtesy by AAZK, Inc.

CALL FOR PAPERS - Dedicated Issue

The *Animal Keepers' Forum* is dedicating an issue this summer to the Cheetah (*Acinonyx jubatus*). We are looking for papers and information pertaining to the cheetah. Topics of interest include husbandry, enrichment, training, reproduction, veterinary, education, conservation, and research. We would also like to include bibliographies, websites, or any other topics pertaining to the cheetah.



Christine McKnight

Papers should be submitted according to the AKF guidelines included in the front of your *Animal Keepers' Forum*. If papers are not submitted electronically, authors should include a disk or CD of their manuscript. Photos, graphs or charts should be submitted separately and not run within the text. If sending such items electronically, manuscripts should be sent in MS Word only and graphic files should be sent as jpegs or tiffs. Be sure to include any photo credits. If you have questions, contact AKF Editor Susan Chan at 1-800-242-4519 (US) or 1-800-468-1966 (Canada); or email her at akfeditor@zk.kscoxmail.com<

2005 Call for Papers for AAZV/AAWV/NAG Joint Annual Conference

The American Association of Zoo Veterinarians and American Association of Wildlife Veterinarians will be holding a joint conference in Omaha, NE 14-21 October 2005. Topics for sessions will include: Nutrition, Health Issues Associated with Mixed Species and Complex Exhibits, Preventive Medicine/Reproduction & Contraception, Legislative and Regulatory Issues, Hoofstock, Carnivores and Small Mammals, Herps/Invertebrates/Aquatics, Avian, Primates, Case Reports, Conservation Projects in Your Backyard and Conservation Updates, Guidelines for Veterinarians Working Abroad and Reports from the Field, Wildlife Epidemiology Using Remote Imaging and Sensing Technologies, Anesthesia, and Emerging and Zoonotic Diseases of Captive and Free-ranging Wildlife. Those wishing to submit a title to be considered for presentation at this joint annual meeting are asked to complete the submission form that is available on the AAZV website (listed below) and e-mail, mail, or fax completed forms to the appropriate session chair. For additional conference information, and for list of session chairs, please visit the AAZV website: <http://www.aazv.org>< The deadline for submission of titles to session chairs is **16 March 2005**.

ATTENTION ARTISTS!

We are currently soliciting artwork for the covers of upcoming issues of *Animal Keepers' Forum*. Potential artists should submit their work to Susan Chan, AKF, 3601 SW 29th St., Ste. 133, Topeka, KS 66614-2054. Black and white pen and ink drawings reproduce best for AKF, but other mediums will be considered. When sending hard copy of artwork, be sure to include cardboard stiffener so it will not be damaged in transit. Artists may also submit artwork electronically as either jpeg or tiff files sent as attachments to akfeditor@zk.kscoxmail.com< Original hard copy artwork will be returned upon request. Artists should include a brief natural history paragraph on their subject species when submitting their artwork. No promise of publication is made by this announcement.

Coming Events

International Association of Avian Trainers and Educators Annual Conference - 9-12 February 2005 in Atlanta, GA. Hosted by Zoo Atlanta. For more information visit <http://www.iaate.org><

ABWAK Symposium 2005 - 5-6 March 2005 at Dudley Zoological Gardens. The 2005 Symposium will focus on: "Zoos - Theory & Practice" and include a range of presentations and workshops covering topics such as: nutrition; conservation (including EAZA Shellshock Campaign); public presentations/keeper talks; interpretation; enrichment and training. ABWAK members benefit from reduced fees; there is also a discount for early booking (before 15th January) Members early fee £30, Non-members early fee £35. To register/book for the symposium contact: Laura Gardner, ABWAK Hon. Secretary, Leeds Castle Aviary, Leeds Castle, Maidstone, Kent, ME17 1PL, UK. Information on Dudley and special accommodation deal is available from Stephen Woollard at education@dudleyzoo.org.uk

The National Wildlife Rehabilitators Association Presents Symposium 2005 "Working Together for Wildlife" - 8-12 March 2005 in Minneapolis, MN., at the Marriott Minneapolis Southwest. Hosted by the Minnesota Wildlife Assistance Cooperative. For further info contact: NWRA Central Office, 14 7th Avenue North, St. Cloud, MN 56303, (320) 259-4086, e-mail nwra@nwrwildlife.org< website, <http://www.nwrwildlife.org><

From Darwin to Dawkins: The Science and Implications of Animal Sentience - 17-18 March 2005 at the Queen Elizabeth II Conference Centre, London, UK. Keynote speaker is Dr. Jane Goodall DBE, Jane Goodall Institute. Hosted by Compassion in World Farming Trust. More information and registration is available online at www.ciwf.org/conference2005

Fourth Sea Otter Conservation Workshop - 18-20 March 2005 hosted by Seattle Aquarium, Seattle, WA. Three days of papers, reports and discussion about all aspects of sea otter biology and conservation. Anyone working with sea otters in any capacity is invited to come. Pre-registration is required; discount for early registration (deadline **18 Feb. 2005**). Pre-registration until **11 March 2005**. Info, registration and/or questions contact Dr. Shawn Larson at shawn.larson@seattle.gov<

The 5th Animal Behavior Management Alliance Conference - 10-15 April 2005 in Houston, TX. Hosted by the Houston Zoo. For more info visit www.theabma.org<

ASZK 2005 Conference - 29 April - 1 May 2005 at Ciloms Airport Lodge Melbourne and Werribee Open Range Zoo. Theme is "Conservation and Conditioning". Abstracts must be submitted by 25 March 2005. Information can be obtained from the ASZK website <http://www.aszk.org.au> or email Liz Romer on slromer@bigpond.com

Fourth Rhino Keepers' Workshop - 5-9 May, 2005 in Columbus, OH. For further information contact Adam.felts@columbuszoo.org<

Fifth World Congress of Herpetology - 20-24 June, 2005 at Conservatorium for Music, Stellenbosch University Campus, Stellenbosch, South Africa. Please visit the website <http://www.wits.ac.za/haa/> or contact the organizer at conf@conferencesetal.co.za< Dr. Ernst HW Baard Manager: Scientific Services Western Cape Nature Conservation Board, Private Bag 5014 7599, STELLENBOSCH; Tel: +27-21-866 8001, Fax: +27-21-866 1523; Mobile: 082-41 40 424; Scientific Services office no. +27-21-866 8000. Visit our website: <http://www.capenature.org.za><

7th International Conference on Environmental Enrichment - 31 July - 5 August, 2005, hosted by the Wildlife Conservation Society in New York City, NY. Registration fee is US \$250. Conference site is Columbia University, with day trips to Central Park Zoo and the Bronx Zoo. Housing arrangements have been made for Columbia dorm rooms, starting at \$45 per person, double occupancy. The theme is "Unifying the Art and Science of Animal Enrichment". Please visit wcs.org/icee2005 for more information on submitting papers and registering for the conference. Please contact icee2005@wcs.org if you have any questions.

28th Annual Meeting of the American Society of Primatologists - 17-20 August 2005 in Portland, OR. For more information, contact: Dr. Kristine Coleman, Chair of the local organizing committee, at colemank@ohsu.edu

First European Congress of Conservation Biology 23-27 August, 2005 in Eger, Hungary. Organized by the Society for Conservation Biology - European Section and the Hungarian Natural History Museum. This cornerstone international event will for the first time bring together academics, students, policy makers, natural resource managers and NGO representatives from all over Europe to address all aspects of conservation biology from research to application. Please visit the website (<http://www.eccb2006.org>) for details, and register for new information.

32nd AAZK National Conference - 28 August - 1 September 2005. Hosted by the Audubon AAZK Chapter and the Audubon Nature Institute. Watch *AKF* in the coming months for more information.

Second International Congress of Zookeeping (ICZ) - May 2006 in Gold Coast, Queensland, Australia. Visit website: <http://www.iczoo.org> for latest information. See information on First Call for Papers in the November 2004 issue of *AKF*.

Post Your Coming Event Here - email to:
akfeditor@zk.skcoxmail.com

From the Executive Director

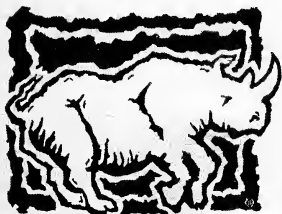
In order to meet publication deadlines, the *Animal Keepers' Forum* and the contents are compiled at least one or two months before publication. So as I write this column, the hectic holiday memories are just hours old. And as I write, I do so as I pack to visit Africa once again.

I'm looking forward to renewing old friendships and looking forward to validating the progress that's been made on the grounds of the Lewa Wildlife Conservancy. It occurs to me, that how often, when you write a check to a conservation organization, do you get the opportunity to visit the site and watch the donations being applied?

On a previous visit, I had the opportunity to speak with staff members who could tell me down to the nickel, where and how Bowling for Rhino's money was spent. Staff were proud of their accomplishments, proud of their growing rhino herds, proud of the world's largest herd of Grevy Zebra. But they're even prouder of the "big picture", which is their contribution to the communities that surround Lewa.

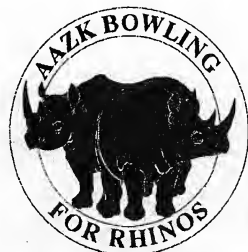
Sure, viewing wildlife in the wild setting is the primary reason to visit Lewa. But I also look forward to seeing the children of Lewa, where you can easily recognize hope and vision in their eyes. I look forward to their tales of accomplishment in their schools that are improving every day. When you leave Lewa and travel to other places in Kenya, shining eyes and hope for the future are not so evident, whether it be in the eyes of children or adults.

For over 10 years now, AAZK has been a stakeholder and supporter of the Lewa Wildlife Conservancy through Bowling for Rhinos. I doubt that you need a "pep talk" on the subject of Bowling for Rhinos, but please, please keep up your hard work. BFR is a fun event, and the funds all go to conservation, every nickel, every year. Saving wildlife, saving kids, saving entire communities. Over \$2 million and counting. Brag on yourself, you deserve it.



AMERICAN
ASSOCIATION
of ZOO KEEPERS

Ed Hansen, AAZK Executive Director
Tucson, AZ



AAZK Seeks Applicants for Webmaster Position

The American Association of Zoo Keepers Inc. is looking for a new webmaster or web designer. Please review the position overview, qualifications, terms of employment, and instructions on applying if you are interested in this position.

Position Overview - This position will oversee and implement the website for the American Association of Zoo Keepers, Inc. AAZK is a nonprofit (U.S. 501c3) volunteer organization made up of professional zoo keepers and other interested persons dedicated to professional animal care and conservation. AAZK shall endeavor to create and maintain a website and/or web pages. This website shall receive approval from the current Board of Directors of the American Association of Zoo Keepers, Inc. This website shall be reviewed annually by the Board of Directors/AAZK and shall be under the oversight of a Board Member appointed by the President of the Association. AAZK shall maintain, develop and maintain criteria for the content and management of the site to include conformation to the Articles of Incorporation and the published Statement of Purpose for the Association. The webmaster will interface with the staff of Administrative Offices as well as the Board of Directors for website content. The webmaster will be expected to update the site on a regular basis as needs arise for the Association. Qualifications for the position are listed below.

Qualifications:

- Expertise in current Internet standards, including Web browsers and browser specifications.
- In-depth knowledge of one or more current web markup or scripting languages: HTML, XHTML, CSS, Javascript.
- Experience with at least one desktop publishing/imaging application in each of the following categories:
 - o Photo Editing (Adobe Photoshop, Paint Shop Pro)
 - o Drawing (Macromedia Freehand, Adobe Illustrator, Corel Draw)
 - o Page Layout (Adobe Pagemaker)
 - o Presentation (MS PowerPoint)
 - o Multimedia (Macromedia Director, Flash, streaming audio and video)
 - o Others (Adobe Distiller/Exchange, GifBuilder, GifConverter, 3ds Max, etc.)
- Experience with managing web site content.
- Ability to learn new Internet and authoring technologies relevant for web site development.
- Strong background with one of the following OS's and familiarity with the others: Windows (ME/ 2000/XP), Mac, Unix (Linux).
- Understanding of dynamic or active web content and the use of Perl, C/C++, CGI, and/or SQL.
- Ability to manage e-commerce (PayPal®) content and shopping cart design.
- Ability to clearly document all projects and track time efficiently and submit invoices.
- Effective verbal and written communication skills and the ability to interact professionally with staff and Directors.
- Experience with developing password protected or "Members Only" sections of websites or the ability to learn this technology.
- Attention to detail is required.

Terms of Employment - The period of employment for this position commences upon hire and continues for one year. A Memorandum of Agreement is to be signed by AAZK Inc. and the webmaster. The MOA's one year term will be reviewed annually and is subject to termination or renewal by either the webmaster or Executive Director of AAZK at the end of the one year period. Simple updates to the website would be capped at a maximum of 4 hours per month. Re-designs or large projects would require a bid of anticipated time and cost be submitted to the Board of Directors for approval. This position is not a full time position nor is it expected to become full time. It is not expected to be the sole source of income for the individual who takes the position.

To apply: Please submit a resumé or curriculum vitae and a salary offer (hourly) to the Administrative Offices at: AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054. Include the web addresses of any websites currently designed or maintained by the applicant for review by the Board of Directors.

AAZK Announces New Members

New Professional Members

Angela Matthews, **Brooklyn (NY)**; Jessica Antalek, **Albany (NY)**; Sheri Jordan, **Riverbanks Zoo & Garden (SC)**; Carey Stanton, **Chehaw Wild Animal Park (GA)**; Peter Burvenich, **Santa Fe Community College Teaching Zoo (FL)**; Jessica Huff, **Nashville Zoo at Grassmere (TN)**; David M. Hedrick, **Chattanooga Zoo (TN)**; Dana Lintner and Shannon Morarity, **Columbus Zoo (OH)**; Beth McDonald, **Akron Zoo (OH)**; Jessica Toles, **Black Pine Animal Park (IN)**; Adam Ramsey, **Merriam (KS)**; Courtney Kelly, **BREC's Baton Rouge Zoo (LA)**; Kim Seiver, **Tulsa Zoo & Living Museum (OK)**; Lora Salkeld, **Dallas Zoo (TX)**; Maria Skorobogatov, **Houston Zoo (TX)**; Christopher Bellows, **Sea World/San Antonio (TX)**; Loren Sobeck, **Abilene Zoo (TX)**; Laurice Pillar, **Cheyenne Mountain Zoo (CO)**; Alisa Nelson, **Wildlife World Zoo (AZ)**; Janice Price, **Albuquerque (NM)**; Christine Slocomb, **San Diego Zoo (CA)**; Kasturi Mukherjee, **Oakland Zoo (CA)**; Heather Blythe, **P.A.W.S. (CA)**; and Brian Moore, **Alaska Zoo (AK)**.

Renewing Contributing Members

Lane Theriac

Washington Park Zoo, Michigan City, IN

Renewing Institutional Members

Cedar Cove Feline Conservation Park

Louisburg, KS

William D. Pottorff, Director

Arizona-Sonora Desert Museum

Tucson, AZ

Richard C. Brusca, Executive Program

Director

(PLEASE NOTE: If you joined or renewed via the AAZK website and used PayPal, please be aware that we do not receive your zoo affiliation information from PayPal, only your mailing address. If you want your zoo listed with your name when it is published in AKF, please contact our office after you join/renew online to advise us of this information. Call 1-800-242-4519 (US) or 1-800-468-1966 (Canada); or email at aazkoffice@zk.kscoxmail.com Thank you.)

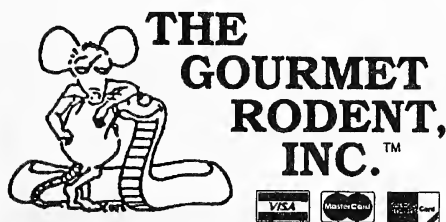
Lonley Whale's Call Remains a Mystery

A lone whale with a voice unlike any other has been wandering the Pacific for the past 12 years, according to a report on *NewScientist.com*. Marine biologist Mary Ann Daher of Woods Hole Oceanographic Institute in Massachusetts, and her colleagues used signals recorded by the U.S. Navy's submarine-tracking hydrophones to trace the movements of whales in the north Pacific. The partially declassified records show that a lone whale singing at around 52 hertz has cruised the ocean every autumn and winter since 1992. Its calls do not match those of any known species, although they are clearly those of a baleen whale, a group that includes blue (*Balaenoptera musculus*), fin (*Balaenoptera physalus*) and humpback (*Megaptera novaengliae*) whales.

Blue whales typically call at frequencies between 15-20 hertz. They use some higher frequencies, but not 52 hertz, Daher says. Fin whales make pulsed sounds at around 20 hertz, while humpbacks sing at much higher frequencies. The tracks of the lone whale do not match the migration patterns of any other species, either.

Over the years the calls have deepened slightly, perhaps because the whale has aged, but its voice is still recognizable. Daher doubts that the whale belongs to a new species, although no similar calls have been found anywhere else, despite careful monitoring.

Source: *New Scientist.com* 12/10/04



RATS AND MICE

Bill & Marcia Brant

6115 SW 137th Ave., Archer, FL 32618

(352) 495-9024

FAX: (352) 495-9781

e-mail: GrmtRodent@aol.com

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From the President

It's that time again. Nomination time! Yes, it's time to nominate your favorite AAZK member for a seat on the Board of Directors. There are two positions open this year. During the last election there were an unprecedented number of your fellow members vying for a seat on the Board. That was fantastic to see. Let's see if we can't make this election another banner year for the number of nominees. But remember that your nomination form and the nominee's forms need to be into the Administrative Offices by the end of this month. Both forms must be typed but don't fear if you don't have a typewriter. The forms are now available in pdf format. If you would like the pdf form email Barbara at aazkoffice@zk.kscoxmail.com and she will

send you the form. You will need the Adobe Acrobat reader to fill out the form and it is available free from the Adobe website at www.adobe.com <<http://www.adobe.com/>> .

With the new year comes many exciting things on the horizon for this Association. Our partnership with AZA continues to grow and expand. Don't forget that the "Advances in Animal Keeping" course will be taught in Sacramento this year. Dates for the course are 30 April-6 May. We're looking to partner with AZA on many more projects in the future as well. Our many committees continue to produce quality materials for our members such as the Enrichment Notebook, 3rd Edition and the Biological Information on Selected Mammals, 4th Edition. If you have not gotten your copy of either of those two CD-Rom publications they can be purchased through the Administrative Office. They may also be purchased through the AAZK website (www.aazk.org) using PayPal*.

Also if you're interested in helping out on any of the committees please feel free to contact the chairs to see how you can help out. The website will continue to grow and expand in 2005. We hope to make it a more dynamic entity that can be of even greater benefit to the membership. If you have suggestions on what you would like to see on the website please feel free to email myself or any other Board member with your suggestions. You may email Board members through the Board of Directors page on the AAZK website (www.aazk.org).

Lastly, the end of 2004 and the beginning of 2005 brought devastation to south Asia on a scale that hasn't been seen in a long time. It's times like these that we should reflect on the gifts we all have in our lives and to keep our colleagues in those areas in our hearts and prayers during this difficult time as they begin to rebuild their lives. Take care and be safe!

Denise C. Wagner
President, AAZK Inc.
Phoenix, AZ

Amazon.com Users-- Don't Forget the AAZK Connection

Just a reminder that if you regularly (or even occasionally) purchase items on *amazon.com*, there is a way you can also help out the Association while you are doing your shopping. If you go to *amazon.com* from the AAZK Home Page (www.aazk.org), the Association will receive 5% of the cost of your purchase. The *amazon.com* icon is at the bottom right of the AAZK Home Page. And the percentage from purchase of goods is on all items you purchase there - books, music, etc. So next time you want to do a little online shopping at *amazon.com*, get there through the AAZK website and help out your professional organization.

Conference 2005

New Orleans, LA

August 28 - September 1

First Call for Papers

The theme for this year's conference is "Bringing Out Your Wild Side, New Orleans Style." We are looking for papers, posters, workshops or roundtables that include inspirational or motivational aspects of the zoo keeping profession. Presentations involving all taxon are desired. Topics of interest include husbandry techniques, training, enrichment, education, exhibit design, conservation, research and professional development.

Include the following information with each abstract:

Name and title of presenter(s)

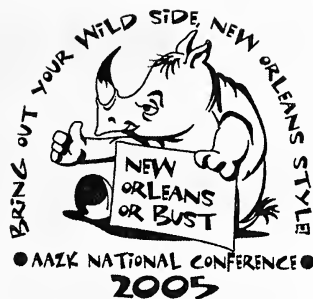
Institution

Address, including e-mail

Title of paper, poster, workshop or roundtable

Short bio of presenter (for introduction)

Audio/Visual needs



Deadline for Abstracts:

1 June 2005

Deadline for Papers:

28 July 2005

Abstracts should be limited to one or two paragraphs. Abstracts must include in detail the significance of the topic to be presented along with the results, conclusions or benefits of the work described. Poorly written or incomplete abstracts will be returned! Mail abstracts to: Michelle Muniz, Audubon Zoo, 6500 Magazine St., New Orleans, LA 70118; or email to AAZK 2005@auduboninstitute.org

New Orleans Post-Conference Trip

We will be going to Belize, Central America for a post conference trip so save your pennies, ask for a few extra days off and come join us! We depart New Orleans on Sept. 2nd and return Sept. 6th. From Belize City International Airport, we take a 15-minute connecting flight to San Pedro Town located on Ambergris Caye about 30 miles NE of Belize City. Ambergris is a beautiful sand and palm tree island just behind the barrier reef. Activities/tours available include scuba diving, snorkeling, kayaking, fishing, and mainland tours of caves and Maya ruins. See Belize Eco-Tours: <http://www.belize-ecotours.com>

We will stay four nights at the Villas at Banyan Bay (see www.banyanbay.com). These are two bedroom condominium-type facilities located about one mile south of San Pedro Town. Each suite is a two bedroom unit furnished with a fully equipped kitchen, living & dining area, cable TV, telephone & A/C. The master bath has a jacuzzi tub & shower.

The trip cost includes a full day tour of Lamanai Ruins beginning with pick-up by boat at the dock of our hotel and boat across the Corozal Bay to New River. The boat takes us this beautiful jungle river offering an abundance of wildlife. The river opens up into a large lagoon and Lamanai ruins is situated at the edge of the lagoon. Your guide will give you a full tour of the ruin and you will have lunch before returning by boat to San Pedro.

COST OF THE TRIP : \$420/person – includes 4 nights (double occupancy) lodging and day boat trip which includes lunch. **FLIGHTS** are currently priced around \$609 (American Airlines- New Orleans to Dallas to Belize RT). Individuals will be asked to make their own flight arrangements directly and we hope to get better rates closer to travel time.

Space is limited and reservations will be taken on a first come, first served basis. Please mail your check payable to New Orleans AAZK for \$420/person to: New Orleans AAZK/Post Conference Trip, 6500 Magazine St., New Orleans, LA 70118. Please give name of person who will be sharing your room.

Additional info: 1) two-hour flight from Miami; 2) Only a passport is needed; 3) Same electricity as U.S., No adapters needed; 4) \$2 Belize = \$1 U.S.; U.S. currency is accepted everywhere and credit cards are accepted at the hotel.

AAZK Award Nominations Are Now Being Accepted for 2005

The AAZK Awards Committee is accepting nominations for the **Lifetime Achievement Award (LA)**, the **Meritorious Achievement Award (MA)**, and the new **Environmental Enrichment (EE) Award**. Nomination criteria for these three awards are listed below. Nomination criteria for the **Jean M. Hromadka Excellence in Zookeeping Award (EZ)**, **The Certificate of Merit for Zoo Keeper Education (CMZE)**, and **The Certificate of Excellence in Exhibit Renovation (CEER)** were published in the January 2005 issue of *AKF*. These awards will be presented at the 2005 AAZK Conference in New Orleans, LA. The deadline for all award nominations is **1 June 2005**. Information concerning the qualifications, nomination procedure, selection procedure and an explanation of the awards may be obtained by contacting Janet McCoy, Chair, AAZK Awards Committee, Oregon Zoo, 4001 S.W. Canyon Rd., Portland, OR 97221.

Lifetime Achievement (LA) Award

The American Association of Zoo Keepers, Inc. (AAZK) is the administering organization of the Lifetime Achievement Award presented by the AAZK Awards Committee. This award is to be given at the end (retirement) of a keeper's career. The purpose of the award is to recognize outstanding commitment to professionalism as a zoo keeper over a long period of time, and significant contributions to the community.

The Lifetime Achievement Award was established by the 1993 Awards Committee, Janet McCoy, Chair. Rachél Rogers proposed the award to the AAZK Board of Directors. The award is presented at the annual AAZK National Conference.

Qualifications:

1. The nominee **must** be a full-time keeper retiring from a career of zoo keeping and employed in any North American zoological institution, aquarium or related facility.
2. The nominee must have been employed at least twenty years on permanent status at a zoo, aquarium or related facility.
3. The nominee **must** be nominated by **two** of his or her peers who have also been employed at that same zoo, aquarium or related facility. Supporting nominations may be submitted by management personnel from the same institution.

Nomination Procedure:

1. List name, position, institution's name, address, phone and Director, years of service in the field and the recommendation of peers or colleagues.
2. List and **document** outstanding achievements: exhibits, breeding, education, project participation, papers, etc. **Verification** of these facts must be signed by the zoo director, curator, or immediate supervisor of the individual being nominated.
3. Describe extra activities outside of zoo, aquarium or related facility work: working with conservation groups, animal related youth groups, rehabilitation wildlife officials, etc.
4. Paragraph of why the nominee fits the criteria.
5. Provide 3 - 5 references.
6. Deadline for nominations is **JUNE 1st** of each year.

Selection Procedure:

The Awards Committee, consisting of five keepers, will independently review each nominee.

Meritorious Achievement (MA) Award

The American Association of Zoo Keepers, Inc. (AAZK) is the administering organization of the Meritorious Achievement (MA) Award presented by the AAZK Awards Committee. The purpose of the award is to recognize professional members of AAZK and AAZK Chapters, in good standing in the Association, for their extra work performed outside the keeper level of performance. This includes keeper participation in AAZPA Bean Award projects, dedicating time to other zoo related projects (conservation, wildlife education and individual breeding projects) and educating others in such programs as Scout Patch Programs.

The MA was established in 1982, by Mike Crocker, 1980-1985 CHAIR, as a means of recognizing work done outside of the scope of the Excellence in Zookeeping award. It is the only award presented by the awards committee that you have to be a member of the Association to receive. The award is presented at the annual AAZK National Conference.

Qualifications:

1. The nominee must be a full-time keeper and professional AAZK member employed in any North American zoo, aquarium, or related facility. In the case of an AAZK Chapter, it must be 'in good standing' having an up-to-date charter with the AAZK.
2. The nominee must have been employed at least one year on a permanent basis at a zoo, aquauium or related facility. In the case of an AAZK Chapter, it must have been active for at least one year.
3. The nominee must be nominated by his/her peers or colleagues, while supporting nominations may be submitted by other zoo, aquarium or related facility personnel. The nominators need not be from the same institution.

Nomination Procedure:

1. List name, position, institution's name, address, phone and Director, years of service in the field and the recommendation of a peer or colleague.
2. List and **document** the outstanding achievements: AAZPA Bean Award project participation, exhibits, breeding, conservation, etc.
3. The deadline for nominations is JUNE 1st of each year.

Selection Procedure: The Awards Committee, consisting of five keepers, will independently review each nominee.

The character of the award includes either a plaque or certificate, letter of notification to the institution's director and national recognition by professional journals. Such journals include: the American Zoo and Aquarium Association (AZA) and the Canadian Association of Zoos and Aquariums (CAZA) Newsletters, Animal Keepers' Forum (AAZK), Awards, Honors and Prizes: Volume 1; United States and Canada. The latter is published by Gale Research Company based in Wheaton, MD and found in medium to large sized libraries across the U.S. and Canada.

Deadline for Nominations is 1 June 2005

Environmental Enrichment (EE) Award

The American Association of Zoo Keepers, Inc. (AAZK) is the administering organization of the Environmental Enrichment (EE) Award presented by the AAZK Awards Committee. The purpose of the award is to recognize outstanding keeper-initiated contributions to the art and science of environmental enrichment. It is hoped that recognition of outstanding efforts by keepers to improve animal care and welfare through environmental enrichment will provide incentive to keepers to continue to be leaders in this important endeavor.

The EE Award was established in 2001 by the AAZK Enrichment Committee. Lee Houts proposed the award to the AAZK Board of Directors. The award is presented at the annual AAZK National Conference.

Qualifications:

1. The nominee may be an individual, group, project or program that has improved the well-being of an animal or group of animals through outstanding keeper-initiated enrichment techniques.
2. Nominees must have excelled in one or more of the following categories:
 - Innovative techniques developed, implemented and evaluated.
 - Creative fundraising efforts implemented which increased the availability of enrichment items for staff to utilize.
 - Motivation of staff, volunteers and peers through development of an enrichment infrastructure that increased participation in in-house programs or disseminated information to the zoo community to advance the art and science of environmental enrichment.
3. The nominee must be nominated by a keeper.

Nomination Procedure:

1. List name of keeper(s) who initiated the enrichment, institution's name, address, phone and Director.
2. List and document outstanding achievements in one or more of the categories listed under qualifications. **Verification** of these facts must be signed by the zoo director, curator, or immediate supervisor of the nominee.
3. The deadline for nominations is JUNE 1st of each year.

Selection Procedure: The Awards Committee, consisting of five keepers, will independently review each nominee.

The character of the award includes either a plaque or certificate, letter of notification to the institution's director and national recognition by professional journals. Such journals include: the American Zoo and Aquarium Association (AZA) and the Canadian Association of Zoos and Aquariums (CAZA) Newsletters, Animal Keepers' Forum (AAZK), Awards, Honors and Prizes: Volume 1; United States and Canada. The latter is published by Gale Research Company based in Wheaton, MD and found in medium to large sized libraries across the U.S. and Canada.

Award Nominations should be submitted to: Janet McCoy, Awards Chair, The Oregon Zoo, 4001 SW Canyon Road, Portland, OR 97221.

Ninth Elephant Ultrasound and Veterinary Procedures Workshop

Riddle's Elephant and Wildlife Sanctuary will be conducting the Ninth Elephant Ultrasound and Veterinary Procedures Workshop in the spring of 2005. The session runs Tuesday, 17 May through Friday, 20 May, 2005. Spaces are very limited; advance registration is recommended. Participants will learn evaluation techniques and the interpretation of ultrasound imaging, as well as semen collection in elephants. Hands-on breeding soundness and general health evaluations will be performed using the sanctuary's 14 elephants. Other topics include foot care and radiographs, blood collections, and other medical treatments. This unique course is taught by Dr. Dennis Schmitt, DVM, PhD, from Southwest Missouri State University (SMSU) in Springfield, MO. Dr. Schmitt is one of the pioneers in the field of adapting modern ultrasound technology to better assess elephants for medical reasons.

To improve elephant medical management and reproduction, the International Elephant Foundation will be offering a US\$1400.00 scholarship to one participant in the Elephant Ultrasound and Veterinary Procedures Workshop held in 2005. This will be a competitive process and require the submission of the applicant's resumé, a statement of interest and a statement indicating how this learning experience will be used to benefit elephant populations. The completed scholarship application must be postmarked by **1 March 2005** and sent to: Deborah Olson, International Elephant Foundation, P. O. Box 366, Azle, TX 76098-0366, USA -- email: DOlson@indyzoo.com,

The Workshop registration fee of US\$1400.00 includes tuition, materials, all meals and lodging at the Riddle's Elephant and Wildlife Sanctuary. For more information, or a registration packet, please contact Dr. Schmitt or the sanctuary office.

Dr. Dennis Schmitt
217 Karls Hall
SMSU AG. Department
901 South National Ave. Springfield MO 65804
417-836-5091 phone
417-836-6979 fax
email - dennischmitt@smsu.edu

Riddle's Elephant and Wildlife Sanctuary
P. O. Box 715
Greenbrier AR 72058
501-589-3291 phone
501-589-2248 fax
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AAZK CPR and Research Grants:

A committee member's perspective and overview

*By Pete Riger, Grants Committee Member
Houston Zoo, Houston, TX*

If you ask any zoo keeper why they chose this career path, the basic answer always come back to the animals. We enjoy working with animals, ambassadors to their wild counterparts, or in domestic collections, educational components which bring our visitors a hands-on experience with our collections. Speak a little further with fellow zoo employees, and we speak of conservation and research initiatives that we all would like to participate in, to make a difference for the animals, both exotic and domestic, wild and captive, to strengthen both our husbandry and management programs. It still comes down to the care of the animals.

What keeps us from reaching these goals - from developing stronger research and conservation programs both on an individual and facility level? Time and financial support may be two of the answers we would hear.

Through the many different grant programs the AAZK now offers, we can provide some assistance to staff interested in pursuing a conservation, research or education program while working on limited funding.

Conservation, Preservation, and Restoration (CPR) Grant Program

Although the different aspects of the program have been available since 1997, there have been relatively few AAZK members stepping forward to take advantage of the grants. The program is now in its 8th season and with the approval of a 2004 grants application, the Committee will only have funded four projects in those eight years. The year 2000 yielded no applications at all, two other years the programs were never completed and funds were withheld and one-year funding for the requested grant was found elsewhere, thus AAZK funding was not used.

AAZK CPR Grants Awarded and Completed

Year	Project	Applicant
2004	"Nobody Doesn't Like Butterflies: Leading Guests in Conservation"	Kristin Moro – Houston Zoo
2003	Enhancing Clouded Leopard Awareness for N. A. and Thai Audiences	Karen Povey -Point Defiance Zoo and Aquarium
2001	Blanding's Turtle Recovery Program.	Angie Dosch – Cosley Zoo
1998	Recycle, Reduce, Reuse, Restore – a recycling program designed to increase public awareness and generate funds for local stream restoration.	Judy Harkleroad – Wildlife Safari

Zoo Keepers in Research Grant

A completely opposite scenario is the AAZK Research Grant, which is made available at the same time as the CPR grant and has been existence since 1997 as well. In the years this program has been available, there have been nine grants accepted and eight funded with no application received in 2004.

AAZK Research Grants Awarded and Completed or in Progress

Year	Project	Applicant
2003	Semen Collection in Rockhopper penguins	Tammy Root & Karen Imboden – Indianapolis Zoo
2002	Developing an <i>in situ/ex situ</i> Clouded Leopard Conservation Program in Thailand	Pete Riger – Nashville Zoo
2001	Gestational Monitoring of Eastern Black Rhinoceros...	Wendy Shaffstall – Kansas City Zoo
2001	Investigating hormonal correlates of seasonal stereotypic swimming in a male Alaskan Brown bear	Christy Ott-Mazrimas - Brookfield Zoo
2000	Characterizing Reproductive Hormones in Female Polar Bears with Fecal Assays	Amy Cutting – Seneca Park Zoo
1999	Brown bat – digestive trials for brown bat diets	Susan Barnard – Zoo Atlanta
1998	Profile of Progesterone Excretion During Pregnancy in Gelada Baboons (<i>Theropithecus gelada</i>)	Florence Klecha – Bronx Zoo
1997	Censusing black howler monkeys	Bruce Clark – Kansas City Zoo

We would like to see these programs utilized to their full effect and believe promoting to members through AAZK Chapter meetings would not only be beneficial to your members but to your institutions as well. Grant applications are available on the AAZK website. We look forward to reviewing your submissions in the Spring of 2005.

AAZK Grant Programs! *Travel, Conservation, Research, and Professional Training*

The Geraldine Meyer/AAZK Professional Travel Grants. A total of \$2,000.00 is available annually. Grants are awarded twice a year, in May and November. Applications, from new and experienced keepers, are evaluated on their merit based on the member's submission of all requested materials. Awards may range from \$1,000.00 to \$250.00 or less depending on need. Applicants are encouraged to solicit additional funds from their institution or other sources. Applicants with other committed funds, or in-kind support (time off) will receive slight priority but all applications are encouraged.

Applications for mid-year consideration are due by February 1 of the calendar year; applications for end of the year consideration are due by July 1 of the calendar year. Money will be available upon notice to the recipient. Winners are required to submit an article to the Forum on the workshop or research they participated in.

AAZK awards \$1,000.00 to the winning applicant to attend the new *Advances In Animal Keeping Course* offered by AAZK and AZA through the AZA professional schools program. Applications are due by July 1 of the year prior to the one in which the applicant wishes to attend this course.

Conservation, Preservation, and Restoration Grant awards up to \$1,000.00 once a year for projects oriented toward all conservation, preservation, or restoration of habitats/species with a preference for projects taking place in the U.S. but not limited to this. Applications are due June 1 of the calendar year for funding the following year.

Research Grant awards up to \$2,000.00 once a year for AAZK member driven research projects, small or large! Applications are due June 1 of the calendar year for funding the following year.

Information on the AAZK grant program is available on the AAZK web site or by contacting the Grants Committee Chair at: jrsotter@iserv.net, jan.smith@columbuszoo.org or 616-366-1033.

Have You Purchased Your Enrichment or Biological Information CD Yet?

**Just arrived is the 3rd Edition of the Zoonotic Diseases
reference work now also in CD Format**

Following the release of the Third Edition of the AAZK Enrichment Notebook (CD), review copies were sent to several people so they could give the CD a try and see what they thought. Peter Dickinson, editor of *ZooNews Digest* out of the United Kingdom, had the following to say about this new resource - "I have spent an enjoyable past two days exploring this CD. Over the past few years I have extensively read enrichment papers and books both in paper and web format and this one takes the biscuit. It is the best I have come across so far. Certainly a very worthwhile addition to every zoo library. If you have no enrichment literature then this should be your first purchase. If you have a big enrichment library then this needs to be your next purchase! Buy it!"

Norah Farhnam of the Woodland Park Zoo in Seattle, WA had this to say about the Biological Information CD: "The information included in the CD is fantastic. Even though it may be sparse in some areas, this is presumably because that particular information is unknown/ unavailable for that species. It is, after all, according to the editors, designed to be a "thumbnail sketch of the natural history of a species". The data that is included, however, provides a great deal of information in a clear, concise format. The bookmark feature is extremely convenient. All orders are listed, and double clicking on any order will expand down to families and species, and simultaneously take you directly to the corresponding information page."

Order forms for the Enrichment Notebook CD, the Fourth Edition of the Biological Values Information on Selected Mammals CD and 3rd Edition Zoonotic Diseases, are available at the AAZK website (www.aazk.org). You may order using PayPal® or print out an order form to mail in. All three CDs may also be ordered by phone from Administrative Office using a MasterCard or Visa. Cost for each Enrichment or Bio Info CD is \$25.00 for AAZK members and \$40.00 for nonmembers; Zoonotic Diseases CD is \$9.50 for members and \$12.00 for non-members. Prices include domestic and Canadian shipping. Additional postage for overseas orders may apply. To order by phone call 1-800-242-4519 (US) or 1-800-468-1966 (Canada).

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Bird Basics: Screaming or Squawking

Question

We are having problems with a cockatoo who has begun screaming when the primary caretaker leaves the room. The animal also has begun to bite another caretaker when their attention is not focused solely on the bird. Can you make any recommendations?

Background

This animal never exhibited behavioral problems prior to the prolonged absence of the primary caretaker. (This bird is now housed at the caretaker's private residence.) Although it is claimed that this creature is wild-caught, it was obtained at a bird expo—so the history is suspect. The undesirable behavior currently escalates when the primary caretaker is out of sight. It is unknown if the biting behavior occurs when the primary caretaker is present. There are no plans to incorporate another bird into the dynamic or to house this animal with conspecifics.

Based on the limited information submitted, I believe an inexperienced caretaker accidentally reinforced inappropriate behavior. I also believe that the bird's sexual maturation has complicated matters. The combination of the two would explain learned behaviors for attracting attention and the rivalry with the secondary caretaker.

Log behavior occurrences with time and duration of behavior, actions, and results.

Keep a piece of paper in a handy place so you can log the occurrences of screaming behavior. Be sure to do so for a minimum of two weeks and throughout behavior modification efforts. It is important that you identify any patterns so you can anticipate and replace them with more appropriate behavior. Two years of bad behavior MAY mean at least 8-16 weeks of consistent efforts to extinguish behavior.

Early dawn and dusk vocalization sessions may be correlated to natural flock behavior and not be extinguishable (but perhaps controllable in terms of duration). Other times may be correlated to attention-seeking behavior (I believe to be your case), feeding time, or related patterns of activity. Fear can be another reason an animal squawks.

Provide suitable confinement and occupation.

This bird should never be perched higher than chest level in the cage or on humans. Daily activities and interactions are needed and enrichment should be rotated weekly. Provide two to three occupational devices (bird puzzles are good) and daily food enrichment (nuts, corn on the cob, etc). In addition to normal housing, provide a T-perch or play perch, and a time-out cage in an isolated area of the residence.

Allow the bird to be in close proximity to the humans during daily routines (on T-perch or play perch). Grooming, handling, and attention should be done with **full** attention by owners at all times.

Identify warning behaviors and prevent poor behavior before it starts.

Birds telegraph the intent to vocalize and bite. Recognize signals and intercept with warnings and replacement activities. You can also verbally warn the bird of an impending time-out. One owner should not interfere with the other's actions during bird reprimands. Duo verbal warnings can be appropriate.

Conduct specific training exercises.

"Step up" and "up" need to be reinforced through consistent behavior of coming onto dowel (or arm) and off by request. If coming out from the cage: ask once, if no response, ask again, then if no response you withdraw and the bird loses the opportunity to come out until you begin again in an hour or so. Ignore the bird if it begins screaming.

Introduce consistent phrases and activities.

"Up" or "Step Up" for mounting/dismounting perch or arm. If worried about biting, use a dowel for coming in and out of cage. Both owners should use the same technique and tools for consistency. Agree on the parameters of the rules.

"No" or "Knock it off" etc., spoken firmly but quietly for inappropriate behavior. Don't engage in an ongoing tirade—as it is reinforcing. You can also ignore the bird or give it a time-out outlined below.

"Time-out" must be in separate cage from main activity quarters. (You can also use a crate.) Time-outs are NEVER longer than 10 minutes and not to be done in the existing cage unless the bird is already in the cage. Abandon the room during the time-out if this is the case. Use a timer so you don't forget the bird. Avoid verbal interactions and any reinforcement via eye contact during this activity or during transport to the time-out area.

"Bed time" or other phrase for lights out and sleep. Cover the bird or close off the area and be consistent for the timing of lights out.

"Good ____" specify activity being rewarded. Good quiet, etc.,

Reprimands.

Use the word "No" "knock it off" etc., and withdraw attention.

Time-out as outlined above.

Earthquake: Twist (or quickly lower) the arm (without verbal interactions) where the bird is perched for the inappropriate action of biting.

Bite Stick: You may want to utilize a smaller stick or dowel if you are battling biting. It is used as a replacement bite object, barrier, or distraction to help you redirect the behavior and prevent a bite.

Provide proximity enrichment.

Incorporate the bird into social areas where it earns attention and proximity only through good behavior. Pay particular attention to a quiet and well-behaved bird! You may want to move the main cage out of its current location and bring the bird into social areas via play perches. Your daily activities might be interesting for the bird to observe. So provide a mobile perch so she can observe you. Make sure to give the bird activities to engage in while you are working.

Increase reinforcement of quiet behavior.

Increase praise when the bird is engaged in desirable behavior. Use scratching, attention, water misting, and occasional treats.

Plan interactive times.

Each caretaker should spend quality alone time with the bird. Quality of personal time, not the quantity, is important.

Be persistent and consistent and let me know how you progress.

Are you a reader with a question? Be sure to submit it—and good luck in all your training endeavors!

(About the columnist: Since 1978 Diana L. Guerrero has worked professionally with both wild and domestic animals. Guerrero has been affiliated with and certified by a variety of animal programs in the USA and Europe. Based in California, she writes, consults, and leads safaris. Information on her animal career programs, training courses, and her newest books, including *What Animals Can Teach Us about Spirituality* (SkyLight Paths, 2003), are available through her website www.arkanimals.com. Questions for ABC's should be submitted to Diana by phone at (800) 818-7387, directly through the ABC's questionnaire on her website, via email zooit@arkanimals.com, or through regular mail: c/o ARKANIMALS.COM, PO Box 1989-215, Big Bear Lake, CA 92315 USA.)

Birds of a Feather Not Necessarily Related

If it walks like a flamingo and looks like a flamingo, it is not necessarily a flamingo - or even a close relative. A controversial genetic study suggests we have completely misunderstood how the majority of birds are related, and that some species that look almost identical are not related at all.

The discovery comes from an analysis of the evolution of the bird gene *beta-fibrinogen*. It suggests that the Neoaves, a group that includes all modern bird species except waterfowl, landfowl and flightless birds, actually comprises two distinct lineages called the Metaves and Coronaves, and that many birds which look alike are not in the same lineage.

For instance, flamingos and roseate spoonbills - two pink, long-legged wading birds with similar-looking heads, wing shapes and plumage - are not related as previously thought. Flamingos, it turns out, belong to the Metaves, while spoonbills belong to the Coronaves.

Matthew Fain and Peter Houde at New Mexico State University in Las Cruces analyzed the number of different nucleotides found on beta-fibrinogen across some 150 bird families. From that the researchers constructed a new avian evolutionary tree.

Convergent evolution

They found two major lineages, each of which contains many examples of convergent evolution, the process by which two species that do not share a recent evolutionary history nevertheless end up looking alike and inhabiting a similar ecological niche.

Both lineages contain owl-like nocturnal predators, birds with long curvy beaks that live on nectar, broad-winged oceanic divers and birds that evolved splayed toes to help them live in trees. Using this classification, boobies and tropicbirds, two similar-looking types of seabird, now belong to Coronaves and Metaves, respectively.

"People have been trying to classify birds based on their appearance for hundreds of years. It is valuable at some levels, but when you get to really deep divergences, you just hit a wall," Houde says.

But Joel Cracraft at the American Museum of Natural History in New York, is not convinced. "The base of modern birds is a very difficult problem to resolve. This is a welcome data set, but it's not going to be this simple," he says. Fain and Houde are working with 11 other genes to corroborate their results.

Source: Excerpted from *NewScientist.com* 11 December 04

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REACTIONS

A Question and Answer Forum for the Zoo Professional on Crisis Management

By William K. Baker, Jr., Curator
Panthera Research, Maumelle, AR



Question

In preparation for a natural disaster, what emergency items would you recommend that you keep stored in vehicles?

Comments

In light of the growing number of natural disasters across our world, this question comes as no surprise to me. In the past year we have seen a dramatic increase in hurricane activity along the Gulf Coast of the United States, which many researchers have theorized may be the beginning of a climatic cycle. With the shared great concern of many of my colleagues, I have watched in horror as the death toll continues to rise in Southeast Asia from the recent tsunami. While the exact reasons for the growing violence of nature remains a subject for serious consideration and debate among meteorologists, the truth remains that as zoological professionals we must be prepared and look with hope to the future.

Having personally experienced nature's wrath in the form of hurricanes, tornados, floods, and severe storms, I have long since taken precautions to carry with me certain items that may come in handy in an emergency. What follows is by no means a complete list; I like to believe that it is a pretty good starting point to work from as the list continues to grow.

Vehicle supplies:

- A full-size spare tire of the same size and make as what you are running on the ground. Emergency spare tires are less than useless.
- A functional tire jack that is compatible with your vehicle.
- A reliable set of jumper cables.
- Replace your vehicle's factory battery with a high-end cold start battery such as a Sears Die Hard®. Cold cranking amps should be a guide for what you purchase, the higher the better.
- All-weather or all-terrain tires are a must when considering that you might need them before it's all over.
- Spare parts such as fuses, fan belts, oil filter, electrical tape, duct tape, and spare hoses are all pluses. Don't count on finding these items during or after a catastrophic event. They won't be there.
- You'll need empty fuel and water cans. The newer collapsible plastic ones work well in my experience and they take up little, if any, space.
- Make sure that you keep a copy of drivers license, insurance policy, vehicle registration, a pre-paid telephone card, and your warranty card in the glove box. Also, back-up cell phone batteries are nice.
- If you have the space or storage, I recommend carrying road flares and a small amount of coolant and oil as well. Normally they are safe to carry in your vehicle.
- A small tool kit will prove indispensable whether you use it for emergency vehicle repairs or to assist in building a shelter.

Personal supplies:

- Water will be your highest priority. Always carry bottled water in the vehicle. Figure that at a minimum you will need one liter per person, per day as a rate of use. Personally, I like the sport bottle styles.
- Food will be your second priority. While having one freeze dried meal per person, per day is a good idea; this can be supplemented in other ways as well. Dry goods such as crackers, trail mix, energy bars, chocolate, nuts, are energy sources that require no refrigeration.
- Another option is to purchase what the military uses, MRE's, (Meals Ready to Eat). You can purchase these at a local surplus store.
- First aid kits are a must. You will want a good one that can handle everything from minor scrapes and scratches to basic trauma. Caution, skimping in this area may come back to haunt you at a later date.
- A reliable knife is a must, and I don't mean something from your local super store. Expect to spend at least \$100 - \$200 for a good blade.
- A reliable waterproof flashlight with o-rings and alkaline batteries.
- A couple of pairs of leather work gloves should be with you.
- Fleece blankets, cat litter, and a shovel are a must if you live or work in higher altitudes where cold is a serious concern.
- An emergency exposure suit is also a great item to have on hand for cold and wet environments. Essentially, it's a jumpsuit made out of space blanket material. They're hard to find but worth it.
- Even if you don't smoke, buy a carton of waterproof matches for wet conditions and a package of disposable lighters for when it's dry.
- A foldable tarp may sound bulky, but they're not. Also, aside from being good emergency shelter and wind break material, they make great stretchers in a pinch for both humans and animals.

Storing supplies:

- If this sounds like a lot of supplies, it is! But, there are ways to make this reasonable. Historically I've used a Rubbermaid® storage container to handle everything but the shovel and that worked well.
- Another approach to try, buy a high-end emergency vehicle kit in a sealed case that has tools, cables, etc. and purchase a quality first aid kit in a sealed case. This will really help with portability.
- I should also mention that many of the newer vehicles have storage compartments that allow you to separate all of your gear into different stashes, especially the SUV's (this prevents pilfering by children!).

Next Month: In a natural disaster, what emergency items do you recommend for both personal animals and those at a zoological facility?

If you would like to submit a question for this column or have comments on previously published materials, please send them to AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614 Attn: Reactions/AKF

(About the Author: Since 1985 Bill has been active in the fields of science, zoology, and wildlife management. His education and experience include a B.S. in wildlife management and post-graduate studies in zoology, Lab and Museum Assistant, Shoot Team Leader, ERT Member, Large Mammal Keeper, Senior Keeper, and Zoo Curator at various zoological facilities. His area of research is crisis management in zoological institutions, which draws upon practical experience and training as a Rescue Diver, Hunter Safety Instructor, NRA Firearms Instructor, and Red Cross CPR/First Aid Instructor.)

Enrichment for a Pair of Captive Whooping Cranes at the Devonian Wildlife Conservation Centre

By Kim A. Todd

Calgary Zoo – Devonian Wildlife Conservation Centre
Calgary, Alberta, Canada

Introduction

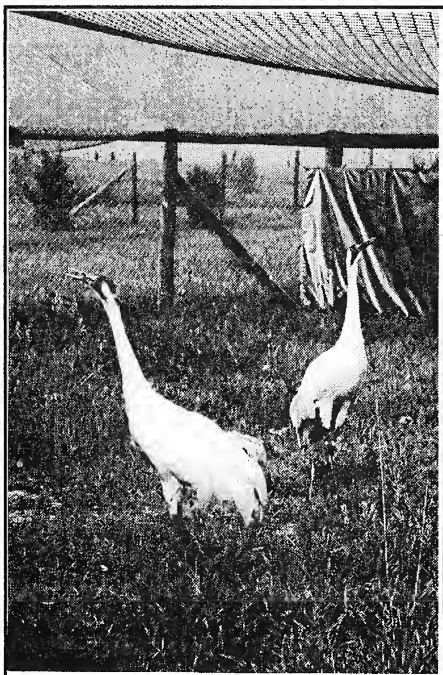
Captive breeding is an important branch of wildlife conservation necessary in preventing extinction of the whooping crane (*Grus americana*). The Nat Christie Whooping Crane Breeding Facility at the Calgary Zoo's Devonian Wildlife Conservation Centre (DWCC) is doing its part by managing a breeding group of 17 whooping cranes. This facility was established in 1992 and is the only Canadian captive breeding centre. The DWCC is located 35 kilometers south of the city of Calgary, Alberta, Canada. Since the first fertile eggs were produced in 1996, 15 chicks have been released to the central Florida non-migratory flock.

Some of the causes of poor reproductive success of captive whooping cranes are a lack of understanding of behaviour, breeding requirements and pair bonds. Lancelot and Eha, a pair of whooping cranes at the DWCC, have been paired together for one full breeding season, but during that season showed no signs of nest building or mating behaviours. Both Lancelot and Eha have been previously paired with other mates for several years but did not reproduce (D. Knapik pers.comm.).

Enrichment was used in this case to try to strengthen Lancelot and Eha's pair bond and to encourage them to breed next spring. It is believed that enrichment can increase reproductive success by creating an environment that encourages normal behaviours which produces reproductively viable adults (Shepherdson, 1998). Enrichment not only can strengthen pair bonds and reduce stress in cranes but also can encourage behaviours such as foraging, dancing and bathing which may help to increase nesting and reproductive behaviours (Gerencser, 1998). The three main goals of this project were to observe Lancelot and Eha's behaviour, strengthen their pair bond and improve their quality of life through enrichment.

Materials and Methods

I performed my observations at the Nat Christie Breeding Facility at the Calgary Zoo's Devonian Wildlife Conservation Centre. My subjects were a pair of whooping cranes, Lancelot and Eha, that are part of the breeding program at the DWCC. Lancelot is an 11-year-old male that was hand-reared and received from Patuxent Wildlife Research Centre in 1995 (D. Snell unpublished). Eha is a 12-year-old female that was hand-reared and received from the International Crane Foundation in November 1993 (D. Snell unpublished). Eha was moulting during the month of July when the majority of the observations were taken.



Lancelot and Eha

(Photo by Kim Todd)

The cranes are kept in 20 off-exhibit yards enclosed by chain link fencing and covered with flight netting. A dark material that prevents visual contact between adjacent pairs covers the chain link fence. There is also an empty yard between the pairs. In the yard the cranes have a pool that is dug into the ground and lined to maintain water, as well as a sentry mound of dirt that is higher than the rest of the yard to allow them to assert dominance or get a better view. Each pair has access to an enclosed building where they have food, water and shelter.

I observed the cranes from a blind that was enough of a distance away to prevent any effect my presence might have on their behaviour. The observations consisted of 30 sessions between 11 June 2004 and 31 July 2004, five days a week at various times during the day. The sessions lasted one hour with a break every 15 minutes. Scan sampling and instantaneous sampling with a time interval of fifteen seconds were used to record both Lancelot and Eha's behaviours. Twenty-one different behaviours were recorded based on a crane ethogram. Because the cranes were able to enter their building at any time I included an 'out of sight' behaviour.

During the first 10 days no enrichment item was given in order to obtain baseline data. The 30 no enrichment was given to observe post-enrichment behaviour. The enrichment items included: a variety of plant material, crickets in an empty plastic milk jug with holes cut into it, mealworms, freshwater invertebrates, rotting logs, corn on the cob, green pepper, watermelon, feeder fish, scatter feed of oats, corn, rice, sunflower seeds and peanuts, a sprinkler and fruits and vegetables in ice.

Results

Previous to the enrichment Lancelot spent the majority of his time foraging while Eha spend most of her time preening (Fig 2 and 3). They did not vocalize at all during this time and Lancelot was observed dancing only once.

Both Lancelot and Eha were quite interested in anything new placed in their enclosure but were interested in some objects more than others. The produce and live enrichment caused the most investigating, foraging and manipulating of the items (Fig. 1). They investigated the plant material, walking on it and manipulating it some but for a relatively short amount of time before losing interest. The milk jugs with crickets were interesting objects because the cranes could see the movement through the plastic jug and were able to catch the crickets that escaped through the holes in the jug. Eha spent a lot more time investigating and foraging this item than Lancelot, who was observed dancing once during the first 15 minutes of the hour. Both Lancelot and Eha spent most of the hour foraging the mealworms in the tub of soil but they did not forage together instead took short turns, trading often. Lancelot and Eha spent almost the entire hour foraging the freshwater invertebrates, again taking turns. Lance spent the first half hour foraging then Eha the second. Lancelot was seen dancing twice at the start of the hour. The rotten logs were completely ignored but the first unison-call was observed during this hour. The cranes foraged and investigated the watermelon, pepper and corn even more than they did the mealworms. They were observed taking pieces or whole vegetables to the pond to wash, probe and stab. They were able to forage together this time on different pieces of the produce that were spread around the yard. Lancelot was seen dancing once on this day. Lancelot and Eha foraged together when the feeder fish were first placed in the tub of water but reverted to taking turns after about ten minutes. They foraged for most of the hour, probably until the fish were all consumed and then Eha proceeded to take a bath in the tub. Again Lancelot was observed dancing at the beginning of the hour. The scatter feed caused an initial interest with some foraging but it did not last long. Lancelot investigated the sprinkler several times while Eha ignored it. They spent more time alert than usual and Lancelot paced the fence line for several minutes. Eha spent most of the hour foraging the frozen fruits and vegetables while Lancelot spent only the first 20 minutes or so investigating and foraging. They performed a location-call near the end of the session after they had stopped foraging the items.

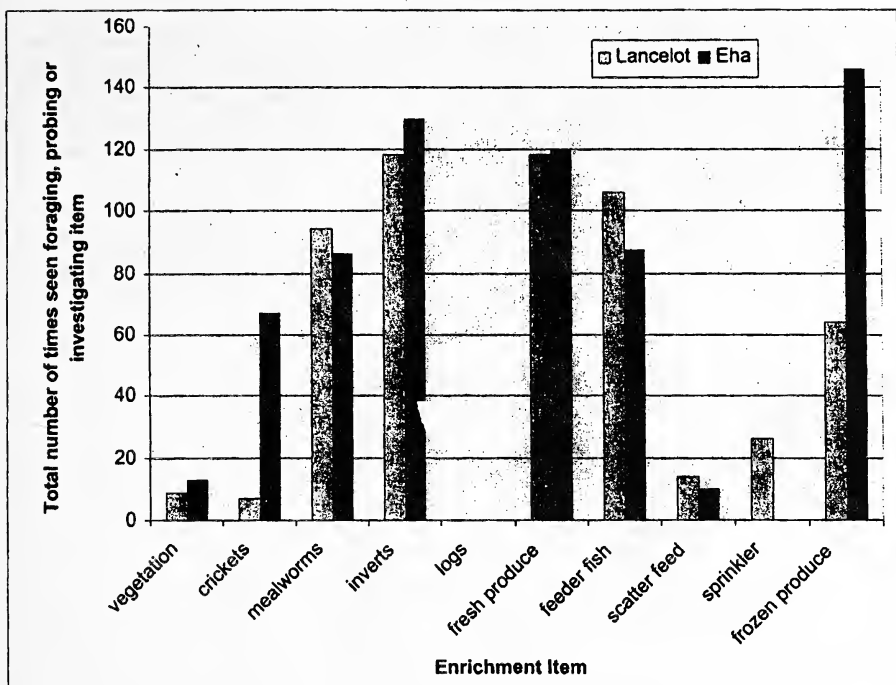


Figure 1. The response of two Whooping Cranes, Lancelot and Eha, to several enrichment items

During the post-enrichment observations Lancelot spent most of the time standing and resting while Eha spent most of her time preening and standing. No dancing was observed during this time but they performed more location-calls now than during the baseline and enrichment observations.

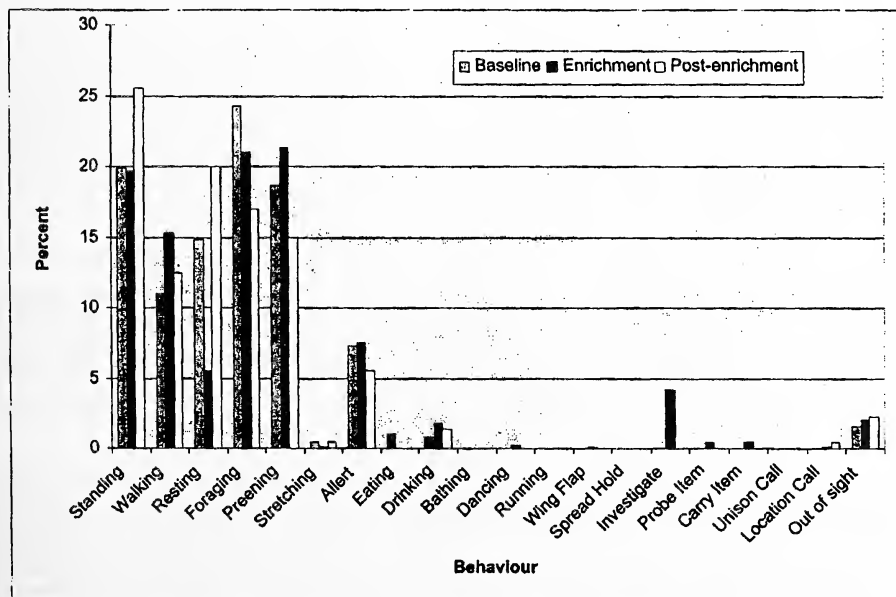


Figure 2. The percent of Lancelot's behaviours before, during and after enrichment

Some interesting overall trends include the fact that both cranes were observed foraging the least during the post-enrichment observations. They both spent more time resting after the enrichment than before or during. Lancelot was seen preening more during enrichment than before or after while Eha preened less. They both spent more time in alert, dancing and bathing behaviours during enrichment and most of the vocalizations occurred during the post-enrichment period.

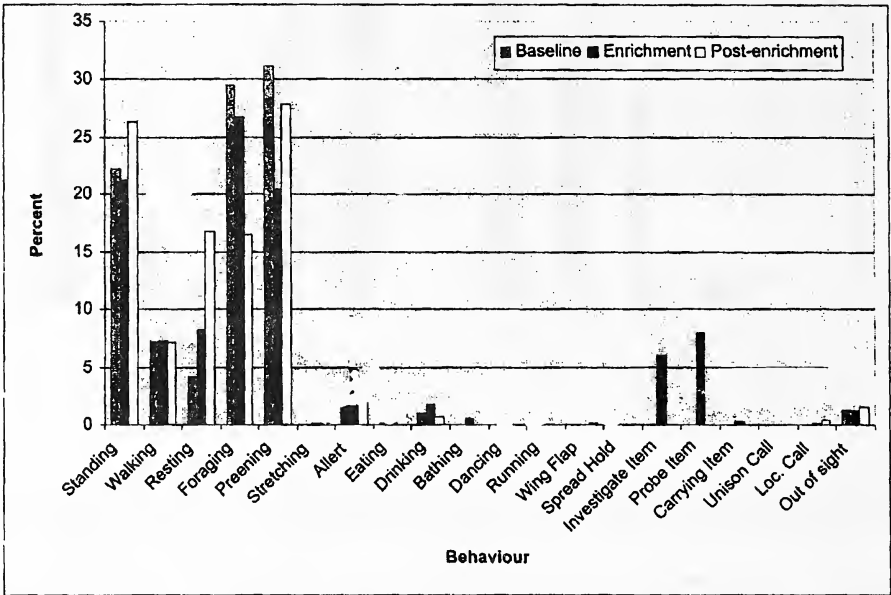


Figure 3. The percent of Eha's behaviours before, during and after enrichment

Discussion

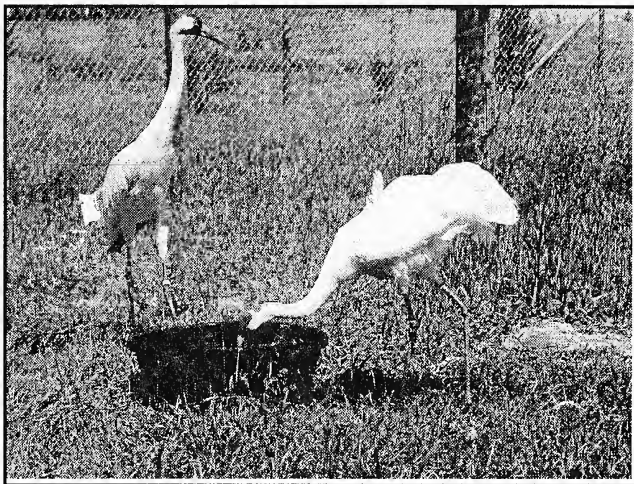
I had suspected that both Lancelot and Eha would be interested in the live enrichment but was surprised at their reaction to the produce. Lancelot has been given in the past natural grasses to use for nesting material as well as rotten logs, peat moss and sprinkled oats in a rubber tub to forage (D. Snell unpublished). Eha was previously on exhibit at the Calgary Zoo with another female where they were exposed to enrichment such as nesting materials, mealworms scattered in grass, flakes of hay, crickets, peat moss and oats in a rubber tub (D. Snell unpublished). I could not find any record of either of them having exposure to frozen or fresh produce though.

Lancelot and Eha usually took turns foraging even when it was possible for both to do so at the same time. This may have been due to a weak pair bond. One indicator of the strength of a pair bond is the average distance between the members of a pair (Ellis et al. 1996). There are several pairing stages that occur between cranes and the first sign of pairing is seen when they stand side by side, then behaviours and displays become synchronized (Ellis et al. 1996). Often behaviours and traits are "contagious", if one crane performs a behaviour, the other will do the same and so characteristics of one crane can be encouraged in the other when two cranes are paired (Ellis et al. 1996).

Both Lancelot and Eha were very interested when they saw someone entering their enclosure. Lancelot was usually seen spreading his wings and dancing briefly while Eha, who is less afraid, often came right over to see what was being introduced in the enclosure. Eha approached more closely than Lancelot which is unlike most hand reared pairs where the male approaches an intruder closer than the female (Ellis et al. 1996). This could also be due to a weak pair bond. Usually the male becomes more defensive of the territory than the female when the pair bond is strengthening (Ellis et al. 1996). If either the male or female is excessively dominant or submissive the pair will probably not breed due to a weak pair bond (Ellis et al. 1996).

The occurrence of foraging and activities related to pairing was probably affected by the seasonal cycles in social displays that cranes exhibit (Ellis et al. 1996). Eha was molting during the observations and there is evidence of a decrease in performance of some displays during the molt, because the bird is flightless and under physiological stress (Ellis et al. 1996). In previous studies of Whooping Crane pairs, the unison-call was heard most often between October and April and least often during the July molt (Ellis et al. 1996). Lancelot and Eha vocalized three times during the enrichment observations and eleven times during the post-enrichment period, which occurred at the end of July. It is thought that vocalizations maintain pair bonds and well-coordinated, frequent calling is important in the synchronization of the breeding cycle (Ellis et al. 1996). Lancelot was observed dancing several times and Eha only once. This behaviour is also associated with pairing and is believed to synchronize mates for successful copulation (Ellis et al. 1996). If dancing doesn't occur this can be a sign that the pair bond is weak (Ellis et al. 1996).

Lancelot has been previously paired with another female and was observed attempting to copulate several times (D. Snell unpublished). Eha has never laid an egg even though she was paired with another male previously but separated due to male aggression (D. Snell unpublished). Neither Lancelot nor Eha have incubating or parenting experience. Lancelot and Eha were paired together in December 2002 but separated in May 2003 due to male aggression (D. Snell unpublished). They were re-introduced in Sept 2003 and have



Lancelot and Eha (Photo by Airlia Hansen)

been together ever since (D. Snell unpublished). This was their first full breeding season together although breeding does not usually occur in the first year. The final sign of a strong pair bond is copulation (Ellis et al. 1996).

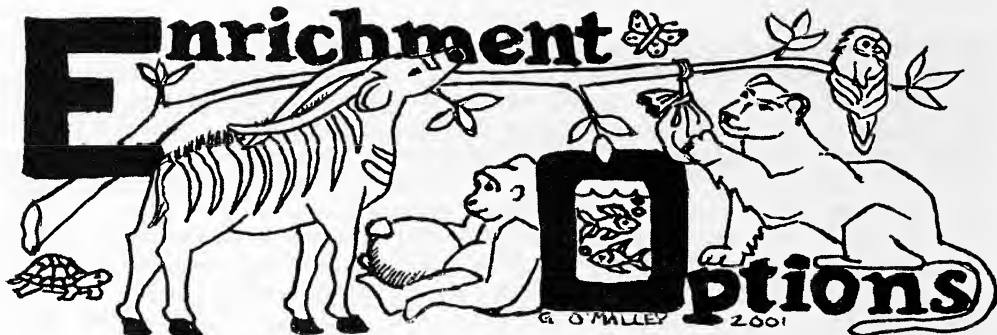
It is promising that Lancelot and Eha could mate next season after spending another year together. Continued enrichment could help to improve their pair bond and their chances of reproducing. Another option that has been found to strengthen pair bonds in cranes is to place a chick in an adjacent pen and allow the adults to adopt the chick (Ellis et al. 1996). Further observational studies will help us to better understand the behaviour and pair bonds of Whooping Cranes. I believe I was successful in improving Lancelot and Eha's quality of life for a short time and I hope that I was able to improve their pair bond and increase their chances of reproducing in the future.

Acknowledgements

I would like to thank Bob Peel, Curator of the Canadian Wilds at the Calgary Zoo, Zookeepers Rick Wenman and Dwight Knapik and Apprentice Zookeeper Cathy Robinson.

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EO Editors - Dawn Neptune, Utah's Hogle Zoo
and Rachel Cantrell, Disney's Animal Kingdom

Tire Hammock

By

*Tarah Bedrossian, Senior Mammal Keeper/Chair of Enrichment Committee
Detroit Zoo, Royal Oak, MI*

Bears were the inspiration for the tire hammock enrichment idea, however it may also work well for other animals as well. For exhibits in need of places for animals to lay down, other than on hard concrete, without the necessary structures to hang the common hose hammock, the idea can come in handy.

Items needed:

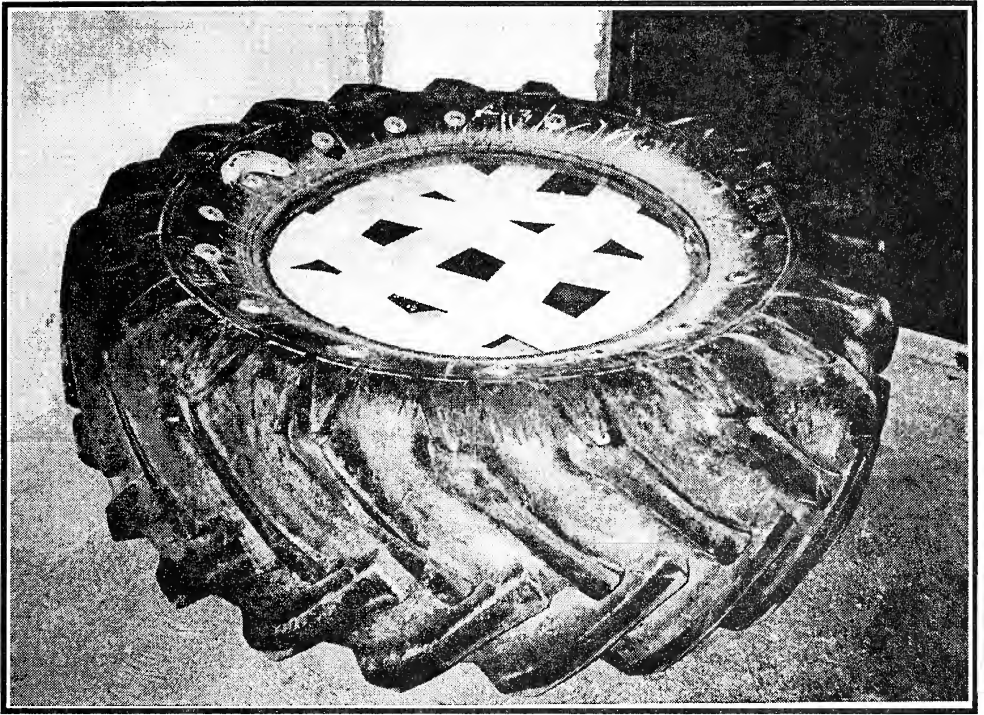
- Have a local company donate large (5-6 foot) used tractor tires.
- Call local fire stations for a donation of used fire hoses.
- Purchase 8 large (1.5 inch) carriage bolts, washers, and nuts.
- Borrow a hefty drill bit, or ask for help from your maintenance division

How to build:

- Pre-cut and wash fire hose into eight strips long enough to stretch the length of the tire center.
- Leave some length (3-4 inches) to allow for weaving and to hold past the bolt.
- Using the drill, drill holes into the tire equal distances apart, and through the hose ends as necessary.
- Attaching one hose strip at a time, weave the strips through as you go, and bolt.
- Once all hose strips are in place, and bolts are drill tightened, saw off the extra bolt and file.

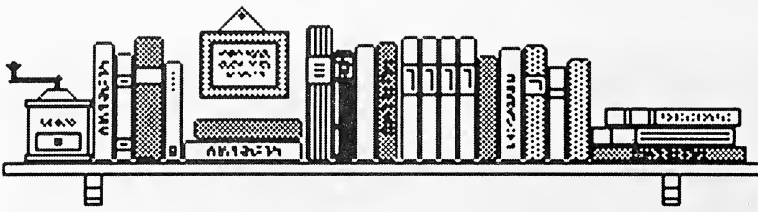
These heavy duty tire beds can be easily rolled to different exhibits and disinfected as needed. For less inquisitive animals adding a bed of straw or hay to the top may help encourage curiosity or a nap.

(Ideas appearing in this column have not necessarily been tested by the editors for safety considerations. Always think ahead and use good judgement when trying new ideas. You are invited to submit materials for the Enrichment Options Column. This might include recipes, toys, puzzle feeders, olfactory enrichment ideas, etc. Drawings and photos of enrichment are encouraged. Send to: AKF/Enrichment, 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054. Eds.)



Tire hammock completed with banana for scale. Pictured below is sloth bear “Boomer” inspecting it. *(Photos provided by the author)*





Book Reviews

The Endangered Species Act: History, Conservation Biology, and Public Policy

By Brian Czech and Paul R. Krausman ©2001

The Johns Hopkins University Press, 2715 North Charles St., Baltimore, MD 21218-4363

ISBN 0-8018-6504-2

Hardback, 212 pgs. \$29.95

Review by Brett Bannor, Keeper
Zoo Atlanta, Atlanta, GA

Well aware of the soundness of the warning not to judge a book by its cover, different folks have developed different methods of quickly analyzing a book to determine if it is something they wish to read. Some people open the volume wide and read a bit right in the middle. Others look at the forward or acknowledgements to see if the author appears particularly enlightened in his declaratory viewpoint or charming in his literary demeanor.

Myself, where nonfiction is concerned, I have always been prone to checking a book's index. More than anything else, this gives one an idea where the tome in one's hands is heading. This method is especially useful if the book considers a topic of which the one perusing it already has some familiarity.

Accordingly, if a zookeeping colleague were to ask me whether Brian Czech and Paul R. Krausman's *The Endangered Species Act: History, Conservation Biology, and Public Policy* is something she should read, I would direct her to the very last pages of the work. The index shows two entries for "Florida panther," exactly the same number as there are for "Adam Smith." The Fifth Amendment to the U.S. Constitution is mentioned on as many pages as are the California condor, the wood stork, and the red-cockaded woodpecker combined. Such a quick inspection of the book's self-citations makes it quite clear that this is not the proper read for one who wishes only for a study of the theory and practice involved in preservation of the particular organisms covered by the Endangered Species Act (ESA). Here, by contrast, Czech and Krausman engage the reader in an analysis of the ESA *itself*, rather than emphasizing the animal and plant beneficiaries of the legislation. With a few reservations, I would say that the co-authors have made their case well.

A key phrase for readers of this book to keep in mind is *policy design theory*. It is through the use of this analytical model that the ESA is probed. On page 47, the phrase is defined in this manner: "Policy design theory assumes that American public policy is supposed to serve democracy in addition to solving technical problems." Bringing up the significance of democracy is intriguing. A cornerstone of the American political process is voting, and since one supposes that few whooping cranes show up at polling places on Election Day, it would no doubt gladden the hearts of those passionate about wildlife conservation if democracy served endangered species well even where the franchise has not yet been extended to nonhumans.

Czech and Krausman argue that—hooray!—the ESA is consistent with our republican values. They explicate this conclusion primarily in chapter 9, and base a good deal of their thesis on a formal scientific survey conducted by the authors themselves. (For doing their own polling, the authors deserve a nod; often surveys presented in books are taken from other sources. Perhaps it is not surprising in this case to find original statistical research, since this book began as Czech's graduate level dissertation.) In the survey, respondents were asked to rank the relative importance of six values: resources for posterity, conservation of species, ecosystem health, democracy, property rights, and economic growth. Note that the first three points have positive connotations for the ESA, the last two can be detrimental to rare organisms, and democracy itself is something of a wild card that could go either way.

According to the results, Mr. Lincoln's dream of government of the people, by the people, for the people shall not perish anytime soon; democracy triumphed over economic growth, property rights,

and species conservation. But democracy itself bowed before the most highly regarded value, resources for posterity. The land ethic—imagine that—flexes its muscle even more powerfully than our sainted American political ideology. Preservation of species—the target of the ESA—polled very slightly higher than property rights or economic growth, but this lead was statistically insignificant. The salient point is that both potentially ESA unfriendly concepts, property rights and economic growth, were not valued above any of the other four elements. Because of this, and with the support of such observations that the ESA was passed by a Congressional majority and includes provisions for such things as suits brought by citizens, the authors conclude that “The ESA adheres strongly to the principles of democracy” (p. 127).

Such an assertion is at first glance, reassuring, upon deeper reflection, troubling. True, the ESA was passed in 1973 with scarcely a dissenting note by Democrat or Republican, but within a decade it had become a matter of some political controversy. Even a cursory examination of the history of wildlife in this country reveals that not so many decades ago, protection of organisms in decline was the concern of the few, not the many. I think that many in the zoo profession would prefer that the black-footed ferret’s safety from extinction be based on a fundamental values framework, rather than being left to the mercy of convincing fifty-one of every hundred adults to vote pro-ferret. Or as one Congressman exclaimed on the floor of the House of Representatives in 1913, in support of a federal bill to preserve migratory birds: “I do not know whether it is constitutional, but I do know that it is eternally right and in the end right will prevail.” The failure of Czech and Krausman to delve thoroughly into the consequences for the ESA should it *not* be majority will is the book’s greatest shortcoming.

Whether or not the zoo professional chooses to read *The Endangered Species Act* cover to cover, there are certainly two resources contained in its pages that he should be aware of for reference sake. The first is contained in chapter 8 “Context of the Endangered Species Act.” The authors examined the listing data for all 877 American organisms listed under the ESA from its inception through 1994 and determined the cause or causes of endangerment for each species. This they present in a table on page 92, where eighteen different reasons for endangerment were identified. This level of analysis means that “habitat destruction” is not listed as a single broad cause; instead, the categories are tabulated with more precise headings such as “modified fire regimes and silviculture,” “road presence, construction, and maintenance,” and “mineral, gas, oil, and geothermal extraction.”

What is the number one cause of endangerment? Three hundred five animals or plants, well over a third of the ESA listed species, are at risk due to “Interactions with non-native species.” This sounds remarkable until one notes the high number of endangered organisms in Hawaii and Puerto Rico. Wisely, the authors present two tabulations, one with and one without insular forms. When Hawaiian and Puerto Rican species are eliminated from the tally, non-native species interactions drops to the eighth greatest cause of endangerment. Among mainland species in trouble, the three greatest threats are, in order, urbanization, agriculture, and “reservoirs and other running water diversions.”

The other handy reference feature, considered in chapter 5 but presented in a more readable form in an appendix, is a clause by clause examination of the ESA, summarizing the assumptions necessitated by adherence to the clause. In doing this, Czech and Krausman are able to denote questionable assumptions of the legislation through use of italics, and to indicate blatantly incorrect or controversial suppositions in boldface. For example, they paraphrase section 4(b)(2) of the ESA as meaning “The Secretary may decline to designate critical habitat (for a listed species) if the economic or other benefits of declining outweigh the costs.” This piece of the ESA, the authors assert, stems from the incorrect or controversial conclusion that “A typical species can be conserved indefinitely in an endangered state” (p. 166). Technical and painstaking as such point by point analysis may be, it behooves friends of the ESA to at least know where to look for such thorough commentary on the minutia of the Act.

The Endangered Species Act: History, Conservation Biology, and Public Policy is, all in all, a valuable contribution to the literature on the ESA. As I mentioned, the book began as Brian Czech’s dissertation. Were I one of his professors at the oral presentation of the work, I would ask him some pointed, challenging questions about the relationship of the ESA to democracy. In the end, however, when it came time to issue a grade I’d give an A.

Adult and Geriatric Weights in Captive Giraffe (*Giraffa camelopardalis*)

By
Roger Reason, Senior Keeper
Ed Laird, Senior Keeper
Brookfield Zoo, Brookfield, IL

In a previous article in *Animal Keepers' Forum* we posed the question of how much an adult giraffe (*Giraffa camelopardalis*) weighs (Reason and Laird, 2002). The answer, as it turns out, was not easy to determine. We presented some preliminary averages and ranges for both males and females, but these were based on a very small sample size of only nine individuals taken from Brookfield Zoo records and from Dagg and Foster (1976). Also, in most cases these weights were from dead or necropsied animals and may not have been representative of the weights of these individuals when they were alive.

Interestingly, most of the standard literature references give numbers that are identical to each other in regard to this statistic. Macdonald (1984), Estes (1991) and Nowak (1999) all mention 800-1930 kg (~1,764-4,255 lbs.) as the weight range for males and 500-1180 kg (~1,102-2,601 lbs.) as the range for females. Kingdon (1979) gives the same ranges along with an average weight of 1100 kg (2,425 lbs.) for males and 700 kg (1,543 lbs.) for females. Unfortunately, it was not possible to determine the original or primary source for these frequently cited figures in order to provide some insight as to how they were arrived at in the first place.

A further search of the literature also shows a large discrepancy regarding the maximum weight for males. In contrast to the above mentioned numbers, Crile (1941) states that a large male giraffe may weigh 1220 kg (2,690 lbs.) or more while Moss (1982) considers a large male to be around 1365 kg (3,009 lbs.) and Dagg and Foster (1976) give 1000 kg (2205 lbs.) as the upper end of the weight range for males.

Overall this presents a somewhat confusing picture due to small sample sizes, lack of documentation and outright disagreement. Fortunately many zoos have developed techniques for obtaining weights on live animals and many of these weights (including those from Brookfield Zoo) can be found in online ISIS records. Using these records we have compiled a fairly comprehensive database of weights for captive adult giraffes. Adult giraffes are defined here as animals between 7 and 20 years of age. Most giraffes stop growing around the age of 7 (Reason and Laird, 2004) and individuals over 20 are defined here as geriatrics since only a small percentage of the captive population (about 5.5 %) reaches that age (LaRue and Lackey, 1997).

The results of this compilation can be seen in Table 1. For the most part these results agree with the numbers found in the literature for the average and range for adult giraffe weights (Kingdon, 1979; Macdonald, 1984; Estes, 1991; Nowak, 1999). There is, however, a considerable discrepancy regarding the maximum weights for both males and females. Our results show a difference of 42% less and 27% less, respectively, than the values found in these literature sources. While Dagg (1971) suggests that captive giraffes may not be as large as their wild counterparts, it seems unlikely that the degree of difference would be of that magnitude, especially for males. Our maximum weight for males does agree closely with that of Moss (1982) and may be more realistic as an upper end of the weight range.

Table 1. Weights (kg) for captive adult giraffes (*Giraffa camelopardalis*)

	<u>Males</u>	<u>Females</u>
Number of Animals	23	32
Average	1020	737
Range	741 - 1360	439 - 932

Our previous paper also briefly mentioned geriatric animals but only two female weights were available (both from Brookfield Zoo necropsy records) so no real conclusions could be reached (Reason and Laird, 2002). Once again the online ISIS records provided a much larger database and the results are shown in Table 2. While the sample size for geriatric male giraffes is too small for comparison, geriatric females (between 20 and 32 years of age in this group) averaged about 10% less in weight than adult females under 20 years of age. The t-test, however, shows that this difference is not statistically significant ($t = 1.751$, $P < 0.05$) so it can be concluded that otherwise healthy giraffes should not be expected to lose weight as they age. It is possible that a significant weight loss may occur in exceptionally old animals (over 25 years of age in males and over 30 in females) but again the sample sizes here are too small to make any determinations.

Table 1. Weights (kg) for captive geriatric giraffes (*Giraffa camelopardalis*)

	<u>Males</u>	<u>Females</u>
Number of Animals	2	12
Average	962	664
Range	724 - 1200	510 - 803

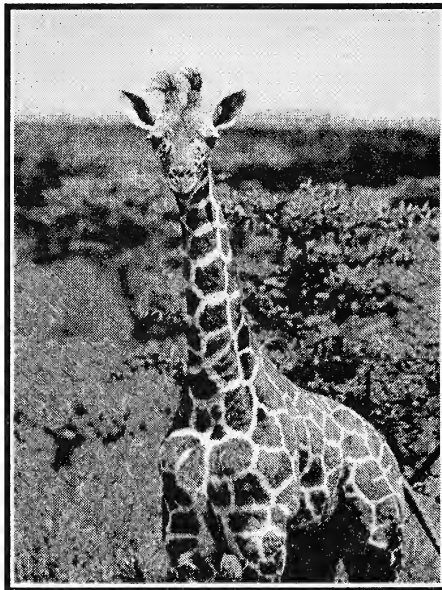
Hopefully the above information provides a useful insight into the giraffe weight question and will be of some value with regard to giraffe management decisions at zoological institutions.

Acknowledgements

The authors would like to thank Nancy Bent, Steve Pine and Ann Petric for their help in reviewing the manuscript.

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Legislative/Conservation Update

Compiled by Georgann Johnston
Legislative Advisor
Sacramento, CA



Final Decision: Greater Sage-Grouse Not Warranted for Listing as Endangered or Threatened

The U. S. Fish and Wildlife Service has completed its status review of the greater sage-grouse (*Centrocercus urophasianus*) throughout its range and determined that the species does not warrant protection under the Endangered Species Act at this time, Director Steve Williams announced in January 2005. This decision follows a recommendation made in December 2004 by agency senior regional scientists and managers that the sage-grouse does not warrant listing under the ESA.

"I have reviewed the work completed by our scientists and I am confident that they have conducted a thorough and rigorous review and their recommendation is based on the best available science," Williams said. "I concur with their recommendation that the greater sage-grouse does not warrant the special protections of the Endangered Species Act across its range. At the same time, the status review clearly illustrates the need for continued efforts to conserve sage-grouse and sagebrush habitat on a long-term basis. I commend Federal and state agencies as well as the local working groups for their current efforts to maintain or improve sagebrush habitat and encourage them to continue to move forward with the new plans to develop and implement conservation strategies throughout the grouse's range."

Under the Endangered Species Act, a species is endangered if it is in danger of extinction within all or a significant portion of its range, or threatened if the species is likely to become endangered within the foreseeable future. The Service received three petitions to list the greater sage-grouse range-wide as endangered or threatened, and began a formal status review in April 2004 across the western landscape. *Source: USFWS Press Release 7 January 2005*

Native American Tribes and USFWS Sign Funding Agreement for Bison Range

The USFWS and the Confederated Salish and Kootenai Tribes (CSKT) recently signed an Annual Funding Agreement for the National Bison Range Complex in Moeise, MT. Under the agreement, the tribes will perform some of the Service's activities at the Bison Range for the remainder of Fiscal Year 2005 and for Fiscal Year 2006. These activities include elements of the biology, fire, maintenance and visitor services programs at the Bison Range.

The National Bison Range Complex, part of the National Wildlife Refuge System, consists of the National Bison Range, Swan Lake, Lost Trail, Pablo and Ninepipe National Wildlife Refuges, and the Northwest Montana Wetland Management District. Examples of the activities CSKT will perform on the Bison Range under the AFA include migratory non-game bird surveys; waterfowl pair counts; bird banding; vegetation monitoring; GIS mapping; invasive plant control; wildfire suppression and prescribed burning; collection of federal public use fees and receipts from Federal Duck Stamp sales; and, custodial services. The Service will maintain ownership of and management authority over all lands and buildings at the Bison Range. *Source: USFWS Press Release 16 December 2004*

Ban on Sport Hunting in Kenya About to Be Overturned

The 1977 national ban on sport hunting in Kenya lacks only Presidential assent to be revoked. The bill to make this change was introduced in Parliament in June 2004 and initially presented as a plan to compensate farmers and others for harm incurred by wildlife. As the bill progressed, however, it became apparent that its primary intent was to allow private landowners to operate hunting ranches similar to those in Zimbabwe, South Africa, Zambia and Tanzania.

Opponents of the bill pointed out that an experiment in game ranching was conducted by the Kenyan Wildlife Service from 1990 to 2003, but was terminated due to drastic declines in wildlife populations, quota abuses, poaching, increased bushmeat production, and little or no capital investments buy the beneficiaries of the plan. Just days before the final vote in Parliament, the acting tourism and wildlife minister dismissed the entire membership of the Kenya Wildlife Services board of directors, the second time in two years that body has been dissolved. *Source: Animal People News December 2004*

USFWS Open Public Comment Period on Non-Native Avian Species

The USFWS has requested public comment and scientific input on a draft list intended to clarify which species of birds found in the United States are non-native, human-introduced species and therefore not federally protected under the Migratory Bird Treaty Act (MBTA). The list, required under the 2004 Migratory Bird Treaty Reform Act, covers birds whose biological families are referred to in bi-lateral treaties that underlie the Migratory Bird Treaty Act, but which were human introduced and are not considered to be native to the United States.

Migratory bird species in the United States are protected by the MBTA. The MBTA implements the United States' commitments under international conventions with Canada, Mexico, Russia and Japan to protect shared migratory birds. While a 2001 court ruling required the Service to protect the mute swan, which is generally considered to be non-native, the Service has traditionally excluded non-native species from the MBTA.

Of the 113 species on the draft list, only 19 are known to have established self-sustaining breeding populations in the United States. Mute swan (*Cygnus olor*), Eurasian collared-dove (*Streptopelia decaocto*), and rock pigeon (*Columba livia*) are the more prominent and well-known species included in this draft list. Several common introduced species - including ring-necked pheasant (*Phasianus colchicus*), chukar (*Alectoris graeca cypriotes*), European starling (*Sturnus vulgaris*), and house sparrow (*Passer domesticus*) - don't belong to families listed under the MBTA and thus are not affected by this notice.

The presence of a species on the list does not change the protections that it might receive under other laws or treaties such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Endangered Species Act, or the Wild Bird Conservation Act. In addition, individual states and communities can protect non-native, human introduced species at their discretion.

Source USFWS Press Release 6 January 2004

"Extinct" Viper and Other New Reptile Species Discovered in Iran

Prior to the 1979 Islamic revolution in Iran, western scientists, including two Swedish zoologists, found dozens of unknown amphibians and reptiles. They hoped to eventually return and in 2000 they got their chance. An Iranian student at Sweden's Goteborg University, who was doing his dissertation on Iran's reptiles, arranged for the two scientists to get back inside the country.

Two expeditions in 2000 and 2002 did not disappoint. In addition to finding ten more lizards and snakes, the scientists were thrilled to find an isolated population of vipers (*Vipera latifi*). Zoologists had feared that the species had gone extinct when a new dam had flooded the viper's habitat in the late 1970s. The scientists also collected 82 species of the 230 amphibians and reptiles that were known to exist in Iran.

Currently the scientists continue to analyze the data and specimens they collected. Funded in part by a grant from the National Geographic Society's Committee for Research and Exploration, the research will piece together a better picture of Iran's herpetofauna (the diversity of amphibians and reptiles) to help ensure its future protection. While 20% of the reptiles in Iran may still be undiscovered, some species may have already gone extinct.

Much of the focus of the research - Iran's central plateau and the surrounding mountain ridges - is extremely remote. Some places also get very hot. In the Persian Gulf area temperatures would soar to 115°F (46°C) in the shade, keeping reptiles out of the sun and out of view.

The highlight was finding a population of Latifi vipers (*Vipera latifi*), named after Iranian researcher Mahmoud Latifi, deep in the sub-alpine Lar Valley in the Elburz Mountains. The zoologists had studied the vipers, which are only found in that valley, in the 1970s. But the ongoing construction of a huge dam has since flooded much of the viper's habitat. "We didn't know if the species had survived," Nilson said. "It took us three days to cross a lake and reach the inner part of the valley. There, we found an undisturbed area with an estimated population of a few hundred adult vipers. It was fantastic."

Other discoveries were somewhat accidental. Traveling near the city of Yassuj, the scientists decided to stop along a mountain wall. There, they found a unique blue-tailed lizard scaling the steep slopes. Species related to the blue-tailed lizard occur on the Arabian Peninsula, suggesting that the lizard

may have traveled to Iran from Arabia millions of years ago when there was a land bridge across the gulf. The blue-tailed lizard was given the name *Lacerta yassujica*. Three of the other reptiles that the scientists discovered in Iran are still waiting in Sweden for their scientific names. *Source: National Geographic News 20 December 2004*

Whooping Crane Update

The endangered whooping crane (*Grus americana*) injured last year in Kansas is said to be improving at the U.S. Geological Survey's Patuxent Wildlife Research Center in Maryland reports a USGS press release. The bird was shot by hunters on opening day of the sandhill crane season while migrating from Canada to Texas. It was part of the last remaining migratory population. Veterinarians at Patuxent say it is too soon to determine whether or not the crane will be able to return to the wild. If it isn't able to return, it will be used in the Center's captive breeding population which provides the cranes for the Operation Migration effort to establish a migratory population between Wisconsin and Florida.

In a related story, whooping cranes returned to South Carolina for the first time in 154 years. Five of the endangered whooping cranes that are part of the Operation Migration effort to reestablish a migrating flock between Wisconsin and Florida detoured to South Carolina on their first unassisted migration, reports the Associated Press. Four of the birds were reported at the Cape Romain National Seashore and the other was spotted on the Savannah River. The birds were tracked by radio signals from transmitters attached to them. The cranes haven't been watched by trackers, who moved on the ground and in the air, but far enough away to keep from disturbing the birds. Sadly, one of the four reported at the seashore was later found dead, likely from a bobcat attack. *Sources: GREENlines Issues #2238 11-13-04 and #2237 11-22-04*

State of the Wolf Report Released

Defenders of Wildlife is kicking-off the ten-year anniversary of wolves in Yellowstone and Idaho by issuing its first State of the Wolf report (available for review at www.defenders.org). The study provides a snapshot in time of the ongoing recovery of the wolf nationwide and the threats that still jeopardize the future of these majestic creatures.

"Over the past ten years we've seen the wolf make great strides throughout the Yellowstone region. Its ongoing journey toward recovery is underway," said Rodger Schlickeisen, Defenders of Wildlife President. "But while the Northern Rocky Mountain region is home to more than 800 wolves, we remain cautiously optimistic that healthy wolf populations will continue to grow and stabilize. The threats they face are serious, but fortunately, not insurmountable if conservationists work together."

While growing public support and federal protections have aided wolf recovery, other obstacles remain. The Fish and Wildlife Service is seeking to remove federal protections and hand over management of the species to the states — a move that would prematurely declare wolves "recovered" when they are still on the road to recovery.

"We can maintain healthy, viable and sustainable wolf populations in the lower 48 states, but it takes serious commitment and a cooperative focus," said the report's author, Nina Fascione, Vice President of Field Conservation at Defenders of Wildlife. "We know that wolves bring both ecological and economic benefits to the areas in which they live, Yellowstone is a perfect example."

The report examines gray wolves (*Canis lupus*) in seven regions: Northern Rockies, Pacific Northwest, Southwest United States and Mexico, Southern Rockies, Great Lakes, Northeast and Alaska. The status of red wolves (*Canis rufus*) in North Carolina is also assessed. Each region has a breakdown of information on the background, current status, threats and the future of wolves in that area. *Source: Defenders of Wildlife press release 1-04-05*

New Monkey Species Discovered

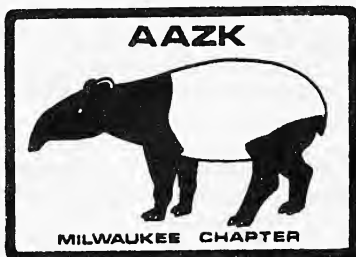
Scientists from India working in the Himalayas have discovered a new species of monkey, a stocky, short-tailed, brown-haired creature they have named the *Macaca munzala*, or Arunachal macaque. Though new species of insects and other tiny creatures turn up from time to time, discoveries of primate species unknown to science are unusual. The last macaque monkey species to be identified, the Indonesia Pagai macaque, was discovered in 1903, according to the Wildlife Conservation Society, the parent organization of the Bronx Zoo and a supporter of the expeditions in which the monkeys were observed. *Source: New York Times 12-17-04*

Chapter News Notes

AAZK Milwaukee Chapter

In October, we continued our fundraising efforts in the form of our annual Halloween caramel apple sale. We raised \$364.00, which will be donated to the Peace River Wildlife Refuge and Sanctuary in Florida.

In November, we hosted our 2nd pizza dinner and auction, which was another hit with our zoo staff and volunteer corps. A large variety of donated items filled the silent auction tables, and more than \$700.00 was raised to donate to a historical exhibit of our zoo, which will go on public display.



And finally, our 2005 officers have been elected. They are:

President.....Joan Volpe
Vice President.....Mark Scheuber
Treasurer.....Dawn Fleuchaus
Secretary.....Mike Frayer
Liaison.....Earl Conteh-Morgan

We are looking forward to a successful new year.

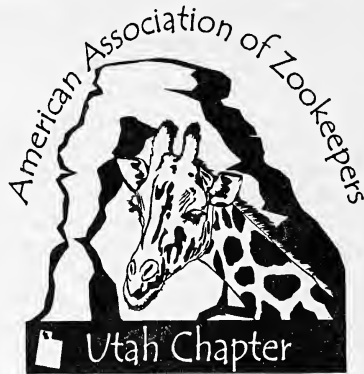
--Earl Conteh-Morgan, Liaison

Utah Chapter AAZK

Here in Salt Lake City there's already snow on the ground, the city is decorated in Christmas lights and shoppers are bustling about picking up last minute gifts as I relate to you the news of 2004 for the Utah Chapter AAZK.

This was yet another productive and exciting year for our Chapter. It seems each year improves

upon the one prior. Our Bowling for Rhinos event was held on April 30, 2004 where we reached maximum capacity with 225 bowlers. In addition we raised the most money yet with \$12,000.00 which won our top money raiser, Bethany Lutz, a trip to Borneo. Cheetah Cha Cha, our event for the Cheetah Conservation Fund in Kenya, was held on Labor Day and raised \$2,600.00.



Our various other fundraisers allowed us to send \$400.00 to Grandeur Peak Open Space Preservation Fund; \$400.00 to The Wolverine Foundation, Inc.; \$400.00 to The Wildlands Project; \$400.00 to The Hyacinth Macaw Project – Projeto Arara Azul; \$560.00 to The Orangutan Foundation International; and \$250.00 to the Dallas Challenge which won and sent an additional Chapter member to the AAZK Conference in Dallas. With a final \$850.00 we were able to set up the Heidi Harmon Professional Development Fund, established in memoriam of a fellow co worker, which allows us to send Chapter members to various conferences, workshops and *in situ* research opportunities.

I would like to close by presenting to you our officers for 2005 and send many thanks for a job well done to the officers of 2004:

President.....Bethany Lutz
Vice President.....Erin Jones
Secretary.....Stephanie Natt
Treasurer.....Amanda Ista
Liaison.....Joanne Randinitis

--Bethany Lutz, President

Greater Houston Chapter of AAZK

As we enter a new year, the Greater Houston Chapter of AAZK would like to reflect on a few of this past year's accomplishments. Our overall fundraising totaled just over \$10,000!

Projects that the Chapter participated in throughout the year include:

- The TPWD Adopt-A-Beach Beach Cleanup (www.glo.state.tx.us/adopt-a-beach) and Crab Trap Cleanup.
- Enrichment Day at the Houston Zoo.
- Kids Festival at the Downtown Aquarium.
- The Center for Ecosystem Survival Conservation Parking Meter program. (www.savenature.org)
- The Green Fund Network. (www.greenfundnetwork.com)



Along with all the hard work and dedication to our projects, we also held our 14th Annual Bowling for Rhinos event which raised a total of \$5,500.00 and our 3rd Annual Fall Party which raised

\$3,100.00 for our Chapter!

We supported several conservation projects which include:

- Sending project supplies to Patricia Medici, a tapir researcher in Brazil. (www.tapirback.com/tapirgal/lowland/medici)
- Adopting two families of Hornbills through the Hornbill Research Foundation. (web.utk.edu/~vchimcho/hornbill)
- Adopting nine cheetahs through the Cheetah Conservation Fund. (www.cheetah.org).

We had a great time at the National AAZK Conference and were there in force as we were able to send nine Chapter members. Thank you Dallas Chapter for a truly wonderful and educational conference!

Our new officers for 2005 are as follows:

President.....Jennifer McLain
Vice President.....Stephanie Nageotte
Secretary.....Tammy Buhrmester
Treasurer.....Susan Shepard
Liaison.....Julie Hartell

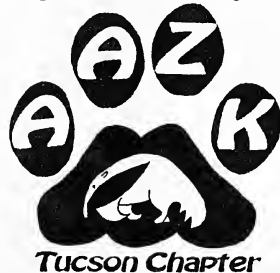
We'd like to congratulate the new officers on their positions! Our Chapter would like to thank Stephanie Bledsoe and Kim Shotola for all of their hard work, dedication, and continued support.

This year will be full of fundraisers, conservation work and educational opportunities for Chapter members. We look forward to an exciting and busy new year!

Tucson AAZK Chapter

Less than one year ago keepers from the Reid Park Zoo and Arizona-Sonora Desert Museum came together to form their very own AAZK Chapter.

For our first fundraiser, Bowling for Rhinos, we were able to raise over \$5,000.00! As the months went on we were challenged to an eating contest by Carl's Junior, in which we raised nearly \$500.00 (and had to provide our own antacids). During Halloween Chapter members dressed up in animal costumes for a photo opportunity for families and children. During the holidays we formed a "Keeper Kazoo Band", in which we kazooed our hearts out in the cool winter nights for donations from the public. Most donations were upon request that we stop kazooing completely.



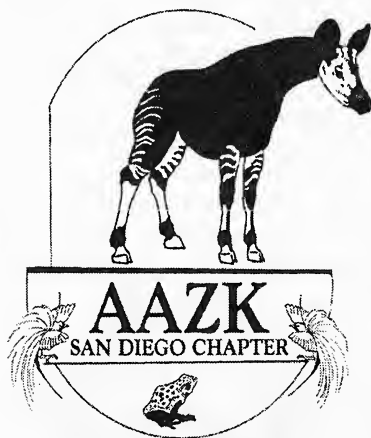
In any event, a huge congratulations goes out to all the Tucson Chapter members. Thank you for all of your hard work and dedication. You should all be very proud of yourselves for such a successful first year! I am honored to get to work with such an amazing group of people.

--Alisha Brewer, President

San Diego AAZK Chapter

In early December the San Diego AAZK Chapter held another successful wine social fundraiser. Proceeds went to the California Wolf Center in Julian, CA. With a huge crowd present, wine glasses full, free catered food, and wallets open for the immense silent auction, fun was had by all. In the end, we raised over \$2,000.00 to benefit the California Wolf Center in their goal to purchase capture and restraint equipment. For more information on the California Wolf Center, please visit their website at: <http://www.californiawolfcenter.org/>

In addition to the exciting evening, we held a contest for a new logo (see below). Mammal Keeper Sara Conchola's design was voted by members to be the new logo for our Chapter. Sara was awarded \$100.00 for her winning design and an additional \$100.00 was donated to her conservation project of choice. Conchola designated the California Wolf Center as the recipient of her additional prize money. Congratulations Sara!



We look forward to another year of exciting speakers, successful fundraisers, education, and conservation. The best of luck to all Chapters this year!

--Matthew Akel, Chapter Liaison/Fundraising Chair
AAZK San Diego Chapter, San Diego, CA



ZARKS

Chapter of the
American Association of Zookeepers

Ozarks Chapter AAZK

This AAZK Chapter, located at the Dickerson Park Zoo in Springfield, MO, is pleased to introduce its logo. It was designed by April Marler and adopted in June.

Naples AAZK Chapter

Having been an official Chapter for some months now, busy with fun activities, projects and fundraisers it is probably time the Naples Chapter submitted an article to join the ranks of published Chapters. We have to show off our logo, too!!

The American Alligator is a commonly seen animal all over southwest Florida; it is certainly a visitor favorite at Caribbean Gardens, the local zoo. It seemed all too appropriate to adopt this reptile for our mascot. Hand-drawn by Cindy Hall (general member) and converted to vector art by Tim Tetzlaff (unofficial Chapter advisor), our logo incorporates optical illusion and effective use of space! Thanks to Cindy and Tim for all their hard work!

Naples Chapter raised over \$2300.00 for Bowling for Rhinos last fall—an astounding amount for our first project ever! We limited participation to our members and all keepers found sponsors and bowled three games!



Our first Chapter fundraiser was selling a lapel pin designed by Stephanie Bolster (general member) and Jeremy Neufeld (Chapter President). We produced 500 of them and sold out in a day and a half!

Our most recent project has been to compile and produce a calendar featuring Caribbean Gardens' keepers and animals. We stocked our gift shop just before the holiday season and are still sending them home with visitors!

Now that we have a budget, we are busy deciding who could benefit from our funds. We are looking at supporting several organizations.

We are excited for the upcoming year and have a number of projects planned!

--Stephanie Bolster
Unofficial Chapter Liaison

Lincoln Park AAZK Chapter

Below is the new logo recently adopted by members of the Lincoln Park Zoo AAZK Chapter, Chicago, IL. It was designed by Anthony Nielsen and Cathy Mauer. The Swans have been a long-time image of LPZ, which started back in 1868 with the gift of two swans from New York's Central Park commissioners.

--Michael W. Skidmore, Chapter Liaison



CHAPTER LOGOS

Does your Chapter have a new logo? Please keep us up-to-date if you change your Chapter logo. Also, new Chapters are encouraged to send in a copy of their logo as soon as they adopt one. Logos may also be sent as graphic file attachments (tiff or jpeg) to the email address listed below.

We will be producing another Chapter Logo Registry in 2005, so make certain the logo in our file is your most current one. When sending in logos, please include name of the artist/designer, date logo was adopted, and what, if any, significance is in the design - animals represented, etc.

What's your AAZK Chapter been up to? Let us know about your successful fundraisers, guest speakers, conservation projects, new officers, new logos, etc. We want to hear from you!

**Send your Chapter News to the
AKF Editor at:**

akfeditor@zk.kscoxmail.com

If You're Moving.....

Make sure to notify AAZK National of your change of address. Don't miss a single AKF issue! Call: 1-800-242-4519 (US) or 1-800- 468-1966 (Canada) or you can email: aazkoffice@zk.kscoxmail.com

2004 CONFERENCE PROCEEDINGS

If you are interested in ordering a copy of the 2004 Proceedings containing the papers presented at the AAZK National Conference held in Dallas, TX, you will need to fill out and return the form on the next page with the appropriate payment. All orders **must** be prepaid in U.S. Funds ONLY. Conference Proceedings are planned to begin shipment in January 2005. Once shipped, domestic orders should take about two weeks; overseas orders within 10 days by air mail. Prices are as follows:

AAZK Member	\$25.00	Non-Member	\$40.00
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Note: Those presenters who correctly submitted their manuscripts on time for inclusion in the 2004 Conference Proceedings will receive **one** gratis copy. All others wishing a copy must place an order.

Papers included: The Success of R.A.T.E. Creating, Planning and Implementing the Reptile and Amphibian Training and Enrichment Workshops ~ ZIMS 1, 2, 3! Making Zookeeping Easier with Shared Data Resources ~ International Congress on Zookeeping: Ideas Without Borders ~ Medical Training ~ The Challenges of Managing Giraffe in Mixed Species Exhibits ~ Playa de Oro - Cincinnati Zoo Conservation Fund Project ~ Passion and Performance: The Emergency Evacuation of America's Teaching Zoo ~ Meeting AZA Training Requirements for a Group of Seven African Elephants in Protected Contact ~ Meerkat Management at Nashville Zoo ~ How Maintaining Pregnancy and Lamb Growth Weights in Bighorn Sheep Led to Improved Herd Management at the Dallas Zoo ~ A Night of Passion: Dreamnight at the Zoo - An Evening for Chronically Ill and Disabled Children ~ Training Birds for Husbandry and Medical Behaviors to Reduce or Eliminate Stress ~ Cultured Critters: Raising Live Foods for Small Fish and Aquatic Amphibians ~ One Small Step...Getting Involved in Wildlife Conservation ~ Poopology 101: A Cooperative Comparison of Dietary Effects on American Black Bear Fecal Consistencies ~ Puente, Blanco, y Arriba: Teaching Training in Mexico ~ The Benefits of Working with Science Fairs ~ Small Beginnings Can Lead to Grand Openings: The Evolution of the Wild Wonders Presentation at Point Defiance Zoo and Aquarium ~ Through the Years with Bowling for Rhinos ~ Treatment and Recovery of Septic Arthritis in the Fetlock Joint of a Male Reticulated Giraffe ~ Training Rhinoceros Hornbills to Decrease Aggressive Behaviors and Increase Pair Bonding ~ When Passion Isn't Enough - the Use of Assisted Reproductive Technology ~ The Development of a Carcass Feeding Program ~ Cheetah Conservation Fund - Namibia to Kenya ~ More Than Jumping Through Hoops: Designing an Animal Training Program for Keepers ~ Cat Got Your Tongue? Learning to Work with a Tongue-less Snow Leopard ~ A Pilot Study on Allocare in Golden Lion Tamarins ~ Effects of Novelty and Natural vs. Artificial Enrichment on Slender-Tailed Meerkats During Foraging ~ Pink Peyton Place: Tales of Caribbean Flamingo Love ~ AAZK Funded Environmental Education in Africa ~ Method for Achieving a Successful Birth and Weaning of a Southern Tamandua at the Cincinnati Zoo & Botanical Garden ~ The Penguin Puffin Coast - New Beginnings ~ Small Mammal Training at Utah's Hogle Zoo ~ Funding Wild Passions: The Naturally Wild Staff Conservation Campaign at the Houston Zoo ~ In the Beginning...Creating a Formal Training Program from the Ground Up ~ Diving for Hippos **Poster Abstracts:** Rockin' Rodents! ~ Working Through Regression: The Making of an Animal Ambassador ~ Managing an Adult Male Masai Giraffe with Two Fractured Front Feet for Hoof Trims Without Anesthesia ~ Otter Training Programs at the Tulsa Zoo ~ Reintroduction of the Anegada Iguana ~ Feed That Snake! ~ HEX Stations for Old World Fruit Bats: A Solution to Feeding Territoriality in Captive Flying Foxes ~ The Hospital Keepers' Contribution to Veterinary Services at Disney's Animal Kingdom ~ Husbandry Techniques for Feline Coronavirus Positive Cheetah with Chronic Gastritis at the Nashville Zoo ~ Small Mammal Training at Utah's Hogle Zoo ~ Courtship and Breeding Behaviors of Okapi ~ Combining Innovative Structural Designs with Interactive Features, Creating a Naturalistic Habitat Where Gorillas Roam Free ~ Feline Sex Ed: Successful Breeding, Rearing, and Weaning of Pallas Cats at the Topeka Zoo ~ Rapport, Creativity and Collaboration: The Keys to the Successful Rescue of a Geriatric Ape from an Exhibit Moat at the Houston Zoo ~ Keeping the Zen in Cleaning ~ **Workshops/Discussion Groups/RAP Sessions Summaries:** AAZK Enrichment Committee: The Importance of Goal Setting in Successful Enrichment ~ Australasian Workshop ~ Pursuing Their Wild Passions: A Discussion of Behavior and Management Techniques During Okapi Breeding Introductions ~ Animal Behavior Management Committee Workshop - Animal Trainers' Open Mike Night: Learning from Each Other and More!

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**The 2004 Conference Proceedings
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Institutions wishing to advertise employment opportunities are asked to send pertinent data by the 10th of each month to: Opportunity Knocks/AKF, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054. Please include closing date for positions available, and when setting these dates keep in mind that because of bulk-mail, most readers do not receive their AKF until the middle of the month or later. There is no charge for this service and fax or e-mail listings of positions which become available close to deadline are accepted. Our Fax is (785) 273-1980; e-mail: akfeditor@zk.kscoxmail.com< Listing must be sent as MS Word attachment. To post a position on the AAZK website, have listing to email address above by the 25th of the month for posting on the first day of the following month. We are no longer located at the Topeka Zoo, so please note new address to avoid delays in processing.

Salaried Animal Keeper - Walt Disney World, Lake Buena Vista, FL

This is a salaried, full-time, permanent position. To apply please send resumé via e-mail to wdw.prof.recruiter@disney.com< Include the source code WDW-AAZK.ORG in the subject line of the message. Please also include a cover letter with the title of the position for which you are applying. For additional information, please contact the Walt Disney World Jobline at (407) 828-1000. **Responsibilities:** Maintain the care, well-being, management, behavioral conditioning and enrichment of the animal collection. Ensure the daily routines of cleaning, animal observation, diet preparation and reporting medical needs and abnormal conditions to zoological managers. Train in a practical understanding of operant conditioning as it relates to the daily management and research of the species under care. **Requirements:** 1) High school degree or equivalent; 2) Combined five (5) years of post-high school education and animal care experience; 3) Minimum of at least three (3) years experience in an AZA-accredited institution or equivalent; 4) Demonstrated strong partnering skills; and 5) Demonstrated strong observation, evaluation and data collecting skills. **Desired Qualifications:** Bachelor's or Associate's Degree in Zoology or related field.

New Nature Park and Botanical Gardens - North Fort Myers, FL

Please email your resumé and references to: iwant2bazookeeper@yahoo.com< Our park, located at the Shell Factory, continues to grow and already includes a wide variety of animals and plants. Interactive exhibits include: Petting Zoo, Camel Habitat, Alligator Slough, Children's Library, & Education Center. We are looking for EXPERIENCED, responsible, hardworking, energetic Zookeepers & Animal Caretakers. Full & Part-time positions available. **Responsibilities:** General park maintenance, cleaning and maintenance of the animal exhibits, assisting with veterinary exams, detailed record keeping, researching and preparing diets, developing enrichment programs, and participation in educational animal presentations. **Requirements:** Experience with captive wildlife/exotic animals and excellent references required. Must work WEEKENDS & HOLIDAYS. Starting pay \$6.50—\$9.00/hr depending on experience.

Great Ape Caregiver - Center for Great Apes, Wauchula, Florida

Please email your resume to resume@prime-apes.org< Interested applicants may view our website at www.CenterForGreatApes.org< The Center for Great Apes, a sanctuary for chimpanzees and orangutans located in rural Florida, has openings for committed caregivers. **Responsibilities:** These positions will be responsible for all daily husbandry, training and enrichment of the chimpanzee and orangutan residents. **Requirements:** Applicants should have experience working with great apes. Applicants must be available to work any of the seven days of the week, including holidays. **Positions are open until filled.**

Part-Time Wolf Trainer - Busch Gardens, Williamsburg, VA

Qualified candidates should send resumé to: Busch Gardens/Water Country USA, Human Resources - Attn: Wolf Trainer, One Busch Gardens Blvd., Williamsburg, VA 23187-8785; Or, fax to 757-253-3013. Opening for a part-time, 32 hours per week, Wolf Trainer. The pay for this position is \$8.15 per hour, and Busch Gardens does not pay relocation costs for candidates. **Responsibilities:** Providing training and public presentations with six grey wolves; cleaning of wolf habitats and support areas; food preparation to ensure diet and nutritional control and animal health; consistent application of animal training and safety protocols; and assisting with education presentations with other animals as needed. **Requirements:** Candidates with the following qualifications will be considered - high school diploma or equivalent; college courses in a life science or psychology preferred; two (2) years experience with animal care or animal training in a zoological facility; working knowledge of general animal training procedures and terminology; working knowledge of operant conditioning and positive reinforcement protocols; and general knowledge of animal behavior and animal husbandry. Busch Gardens/Water Country USA is an equal opportunity employer and supports a safe and drug-free workplace.

General Curator - Wildlife Way Station, Angeles National Forest, CA

Please email resumé and salary requirements to: icarefortheanimals@msn.com< Large Southern California Wildlife facility is seeking to fill the position of General Curator. **Position Description/Responsibilities:** Duties include but are not limited to: Assist Animal Director and Director of Operations in the development and implementation of protocols; procedures; schedule, assign and direct all animal care staff; manage all aspects of animal care including: husbandry; training; enrichment; cage maintenance and enhancement;

review, hire and supervise the training of new keepers. This position may involve a high paced atmosphere. **Requirements:** *Education* - Bachelor's Degree in zoology, biology or related field. Experience: Demonstrate a history of a minimum of five (5) years experience in the husbandry of exotic species with special regard to carnivores, birds and primates. Successful candidate will possess a minimum of two years experience in a management capacity. *Knowledge, Skills and Abilities* - Understanding of animals and their characteristics, habits and basic health knowledge required; a proven record of animal husbandry, enrichment and operant conditioning; a working knowledge of animal record keeping systems; knowledge and experience with regulatory agencies; supervise an animal care staff of fifty; work within the required budget; work effectively and harmoniously with staff; current TB test and tetanus shot; the ability to lift 80 lbs.

Kentucky Reptile Zoo - Slade, KY

Interested parties should apply to: Kristen Wiley, Kentucky Reptile Zoo, 200 L&E Railroad, Slade, KY 40376; or email to: kyreptil@pop.mis.net Kentucky Reptile Zoo has one full-time position available as well as intern positions for the 2005 season. The zoo is an educational exhibit, reptile breeding and venom research facility located near Kentucky's Red River Gorge and Natural Bridge State Park.

Reptile Keeper: Entry-level keeper position. **Responsibilities:** Keepers' primary responsibilities are husbandry and care of animals, precise record keeping, and general cleaning and maintenance of facilities and caging. Additional duties may include interacting with the public, care of feeder animals, and exhibit design and construction. **Requirements:** Experience with reptiles required, venomous experience at a recognized institution preferred. Bachelor's degree in biology, zoology or related field preferred. The successful candidate will display a willingness to work independently, good organizational skills, orientation to details, and a solid understanding of reptile biology. Pay \$8.00/hour, 40-hour work week. Willingness to work Saturday and Sunday and valid driver's license required. Position open until filled; please apply immediately if interested.

Internships:

Responsibilities: The interns will assist in the captive maintenance of the zoo's reptile collection, collect admissions to the exhibit, give interpretive talks and interact with the public, assist with educational outreach programs, and perform other duties as assigned. In addition, interns will be responsible for the completion of at least one special project related to the field of herpetology or to the improvement of the zoo. The intern will not be involved in the handling of any venomous species. **Requirements:** Desirable qualifications include a willingness to handle snakes and other reptiles on a daily basis, ability to communicate effectively with people, writing skills, orientation to details, and self-motivation. The intern will be required to work Saturday and Sunday, with days off during the week. Students majoring in the biological or natural sciences are preferred. Interns are required to be either college students or recent graduates. Former interns have arranged for academic credit with their institutions. Benefits include experience with one of the most extensive and diverse collection of snakes in the United States, housing, and \$55/week to cover expenses. Interns have been successful in finding zookeeper positions; over 95% hire rate! Personal transportation is recommended. A valid driver's license is required. Starting dates are flexible, but a minimum of three (3) months covering spring (April-June) summer (June-August) and fall (September-November) is required. Deadlines for internship positions are **February 1** for spring, **March 1** for summer and **June 1** for fall.

Keepers and Interns - Paws Exotic Animal Sanctuary, Galt, CA

With three (3) Sanctuaries located just south of Sacramento, CA. No heavy rush hour traffic & a reasonable cost of living in Northern CA. *All positions open until filled.* Send your resumé & at least three (3) verifiable work references to: PAWS, Attn: New Keepers, P.O. Box 849, Galt, CA. 95632. Or Fax 209-745-1809. Or e-mail info@pawsweb.org We need your help taking care of our permanent residents. **Requirements:** If you are reliable, dedicated & self motivated, have experience with wild, exotic or large domestics, then we want to hear from you. We offer competitive wages & quality of life.

No experience or limited availability, we are looking for a few good interns. Send us a resumé or a letter telling us a little about yourself & why you want to be a zookeeper or intern at Paws. Include three (3) professional references and when you are available & for how long, to: Paws, Attn: New Interns, P.O. Box 849, Galt, CA. 95632. Or Fax 209-745-1809. Or e-mail info@pawsweb.org Housing provided. To find out more about our four-legged friends & us go to our web site at www.pawsweb.org

Zookeeper/Guides - Soco Gardens Zoo, Maggie Valley, NC

Send resumé to Soco Gardens zoo, Jim Miller, 89 Evans Cove Rd., Maggie Valley, NC 28751. Please include cover letter stating dates available to work and letters of recommendation from immediate supervisors, preferably zoo-related, if available. Good opportunity to gain paid zoo experience. Positions are seasonal available March - October and May - October. E-mail address: socogardezoo@bellsouth.net;

website address: www.socogardenszoo.com < **Responsibilities:** Duties include but not limited to giving lectures to the public on various mammals and reptiles, participating in the daily feeding, care, and enrichment of mammals and reptiles, and various maintenance. **Requirements:** Must be willing and able to do physical labor, required good oral communication skills, neat appearance, and must work well with co-workers. Must have experience in handling non-venomous reptiles or a willingness to learn. Non-smokers. Must work six days per week and holidays. Salary: \$240.00 per week. Lodging, utilities and uniforms furnished. No personal pets.

The following positions are available at the Virginia Safari Park, Natural Bridge, VA. If interested in either position please email to Eric Morgensen at emorgensen@virginiasafaripark.com or Fax to (540) 291-1256. Visit our website at www.virginiasafaripark.com <

Virginia Safari Park is a 180-acre drive through zoo with over 400 animals and 50 different species roaming free and in walk-thru areas. We are a young facility and are looking for people to come grow with us. This is a very quiet mountainous rural area with a small town atmosphere.

Animal Keepers in both the drive through safari and the walk-about areas of the zoo. **Responsibilities/Requirements:** Qualified applicants will possess some animal experience, a strong desire to work with exotic animals, and the ability to clean, maintain exhibits, feed animals, make observations and work well with others. Degree in biology, zoology or related field a plus. Salary commensurate with experience.

Lead Keeper - Drive-through safari portions of the zoo. Qualified applicants will possess 1-2 years supervisory experience in a zoo, strong leadership and problem-solving skills. Other abilities include cleaning, maintaining exhibits, feeding animals, making observations and working well with others. Large herd management a big plus. College degree in related field required - will substitute experience.

Aviculture Internship - International Crane Foundation, Baraboo, WI

Applicants should submit a cover letter, resumé, and three (3) letters of recommendation to Kelly Maguire-Aviculture Internships, International Crane Foundation, P.O. Box 447, Baraboo, WI 53913. Final candidates will be notified for a phone or in-person interview. Stipend is \$375/month plus housing provided on site. ICF is a non-profit conservation organization that works worldwide to save the fifteen species of cranes and their habitat by providing experience, knowledge and inspiration to people. Aviculture interns receive hands-on training in the care and management of endangered cranes. †Interns will be exposed to general crane husbandry, handling techniques, health care, incubation, artificial insemination, behavior, and breeding management. **Responsibilities:** vary by season and include daily cleaning, food provisions and other care of adult cranes and chicks comprise half of the job. Other tasks include annual facilities maintenance, pen repair, video monitoring, chick rearing and assisting full-time staff with projects. **Requirements:** Two years of college or other practical experience with knowledge of and interest in bird

More Zoo vacancies can be seen by visiting:

American Zoo and Aquarium Association - Job Listings

<http://www.aza.org/JobListings/>

American Association of Zoo Keepers' - Opportunity Knocks

http://www.aazk.org/aazknew/animalKeepersForum/opportunity_knocks.asp

European Association of Zoos and Aquaria - Vacancies

<http://www.eaza.net>

Australasian Society of Zoo Keeping (ASZK)

<http://www.aszk.org.au/Zoo%20Positions%20Vacant.htm>

Berufsverband der Zootierpfleger e.V

<http://www.zootierpflege.de/stellen/stellenzooseiten/STzoowebsitesen.htm>

Zoo Vets, Technicians and interns

http://www.aazv.org/job_openings.htm

Bird Jobs in the Field

<http://www.birdingonthe.net/maillinglists/BJOB.html>

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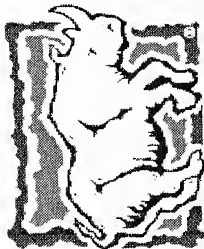
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The Journal of the American
Association of Zoo Keepers, Inc.

MARCH 2005

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Animal Keepers' Forum is published monthly by the American Association of Zoo Keepers, Inc., 3601 S.W. 29th Street, Suite 133, Topeka, KS 6661-2054. Ten dollars of each membership fee goes toward the annual publication costs of Animal Keepers' Forum. Postage paid at Topeka, KS.

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Kristen Wolfe, Disney's Animal Kingdom

Professional Development

Chair - Shane Good, Cleveland Metroparks

Bowling for Rhinos - Chair - Patty Pearthree, Cary, NC

MEMBERSHIP SERVICES

ADT, EDT and ATD Forms

AAZK Administrative Offices/Topeka

Enrichment Committee

Chair - Amy Burgess,

Disney's Animal Kingdom

AAZK Website

Liaison to Webmaster - Denise Wagner, The Phoenix Zoo

Animal Training Committee

Co-Chairs- Angela Binney, Disney's Animal Kingdom & Kim Kezer, Zoo New England

International Outreach

Jeannette Beranger, N. Kingstown, RI

AAZK Historian

Mark Levin, Plymouth Meeting, PA

AAZK PUBLICATIONS - CONTINUING DATA COLLECTION

Biological Information (formerly Biological Values), 4th Edition - Jan Reed-Smith, Columbus Zoo

AAZK Enrichment Notebook 3rd Edition - Lee Houts, Folsom City Zoo

Resources for Crisis Management in Zoos & Other Animal Care Facilities, Vol. 2 - Susan D. Chan, Topeka, KS



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30th Anniversary
1974 - 2004

About the Cover.....

This month's cover features the Barn Owl (Typo alba) drawn by Carol Sharp of Salt Lake City, UT. With its pale mask, long white feathers spotted with gray, and its large eyes, this nocturnal bird of prey presents an awesome picture. Its whistling cry is distinctive and lends an air of the mystic to this species. There are 30 species of barn owls in Europe, Africa, Southeastern Asia, Australia and in America. They have even been imported to some islands in the Pacific to help with rodent problems. Usually nocturnal, this species weighs about a pound and has eyesight adapted for hunting in darkness. Its wingspan can reach three feet. Toward the middle of April, the male barn owl lays in a good supply of rodents, birds, and large insects to attract a female and encourage her to mate. This species usually produces two broods a year of 2-10 eggs. Following an incubation period of 30-40 days, the young are raised on the ground in a nest of vegetatable debris and dry pellets from regurgitated food. The weaker owlets may die of starvation as competition for food is fierce. Those that survive are driven from the nest at around the age of three months, or as soon as they are able to feed themselves. The following website has some ideas on building nests for barn owls from off-the-shelf materials - <http://www.rain.org/~sals/barnowl.html>< Thanks, Carol!

Animal Keepers' Forum publishes original papers and news items of interest to the animal keeping profession. Non-members are welcome to submit articles for consideration. Articles should be typed or hand-printed and double-spaced. Authors are encouraged to submit their manuscripts on a disk as well as in hard copy form. Manuscripts submitted either on disk or electronically as attachments to an email should be submitted in Microsoft WORD. All illustrations, graphs, charts and tables should be clearly marked, in final form and should fit in a page size **no greater than 5.5" x 8.5"** (14cm x 22cm). Literature used should be cited in the text (Brown, 1986) and alphabetically in the final bibliography. Avoid footnotes. Include scientific name (as per ISIS) the first time an animal name is used. Thereafter use common name. Use metric system for weights and measurements (standard equivalents may be noted in parenthesis). Use the continental dating system (day-month-year). Times should be listed as per the 24-hour clock (0800, 1630 hrs. etc.). Glossy black and white **or** color prints (minimum size 3" x 5" [8cm x 14cm]) are accepted. Clearly marked captions should accompany photos. Please list photo credit on back of photo. Photographs may be submitted electronically as either JPEG or TIFF file attachments.

Articles sent to Animal Keepers' Forum will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for AKF. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 1-800-242-4519 (US); 1-800-468-1966 (Canada); FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com<

**Deadline for each regular issue is the 10th of the preceding month.
Dedicated issues may have separate deadline dates and will be noted by the editor.**

Articles printed do not necessarily reflect the opinions of the AKF staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

Items in this publication may be reprinted providing credit to this publication is given and a copy of the reprinted material is forwarded to the editor. If an article is shown to be separately copyrighted by the author(s), then permission must be sought from the author(s). Reprints of material appearing in this journal may be ordered from the editor. Back issues are available for \$3.00 each.

E-Mail Addresses: You may reach Barbara Manspeaker at AAZK Administrative Offices at: aazkoffice@zk.kscoxmail.com< You may reach Susan Chan and Animal Keepers' Forum at: akfeditor@zk.kscoxmail.com<

AAZK Website Address: www.aazk.org

BFR Website: <http://bfr.aazk.org>

Scoops & Scuttlebutt



Chapters Support AAZK, Inc. Through Donations

As recharter packets have begun to arrive, so have donations from AAZK Chapters to help fund the Association's projects and programs. The AAZK Board of Directors and the Administrative Office staff would like to thank the following Chapters for their donations: El Paso de Norte Chapter (El Paso Zoo, El Paso, TX) \$50.00 (General Operating Fund); and AAZK of Cheyenne Mountain Zoo (Colorado Springs, CO) \$125.00 (Conservation, Preservation & Restoration Fund) and \$125.00 (AAZK Endowment Fund); and Little Rock AAZK (Little Rock, AR) \$500.00 (General Operating Fund).

Announcing the ASZK "Keeper Exchange Service"

In an effort to facilitate Keeper Exchanges, the Australasian Society of Zoo Keeping (ASZK) is now providing a "Keeper Exchange Service" to people currently employed in a zoological institution. This service is not limited to the Australasian region and keepers from any zoological institution wanting to undertake an exchange are encouraged to take advantage of this free service. To register your interest in undertaking a Keeper Exchange, simply fill out the registration form that can be downloaded from the ASZK web site at <http://www.aszk.org.au/Keeper%20Exchanges.dwt> and return it to me by e-mail. Your details will then be added to a database, and when a suitable exchange opportunity becomes available, you will be contacted to ensure that you still want to undertake an exchange. Should you decide to continue with the exchange, you will be sent the contact details of the person seeking to do an exchange with you. The rest is then up to you! To find out more about this service, please visit the ASZK web site at <http://www.aszk.org.au> or e-mail me at Geoff.Underwood@aszk.org.au from Geoff Underwood, ASZK International Liaison Officer

Husbandry Manuals Register in Progress--Submissions Sought

The ASZK has commenced a project which aims to create a "register" of all Husbandry Manuals which are currently available, and make this list freely available to everyone from the ASZK Web Site. Currently there is no central listing of the various Husbandry Manuals which have been produced, nor who to contact to obtain copies of specific manuals, and it is hoped that by providing this service we will be supporting keepers in their efforts to improve the husbandry and welfare of the species in their care. For this project to succeed though, we need your help! If you have written a husbandry manual or know of someone who has, could you please e-mail the details (see below) to me at Geoff.Underwood@ASZK.org.au or alternatively you can download the registration form at <http://www.aszk.org.au/Husbandry%20Manuals.dwt/> While this project has been initiated by the ASZK, it is not limited to Husbandry Manuals from the Australasian region, and we are lookingto have the registry include manuals from Europe, the US and elsewhere as well.

Husbandry Manual Registration Details should include the following:

Species: Common Name and Latin/Scientific Name

Manual Details

Publication Date	Electronic version available?
Author(s)/Editor(s)	Hard copy version available?
Available from	Cost (to purchase - if any)?
Contact person	Copyright holder?
Postal Address	If this manual is freely available for downloading from a web site,
Phone	please provide the site address;
Fax	
E-mail	Other: Is the full version available for inclusion on web site?

Submitted by:

e-mail address:

Gorilla Journal Available Online

The new issue of the "*Gorilla Journal*" newsletter (Dec. 2004, No. 29 ; the Journal of Berggorilla & Regenwald Direkthilfe) is ready to download from the following website:

English: <http://www.berggorilla.de/gi29e.pdf>

German: <http://www.berggorilla.de/gi29d.pdf>

French: <http://www.berggorilla.de/gi29f.pdf>

Zoo Elephants Paint to Aid Tsunami Victim Relief

Asian elephants at a number of zoos around the country have put their painting skills to work to raise money for the victims of the December 26th tsunami in south Asia. Rasha, a 0.1 Asian elephant born in Thailand in 1967 (and residing at the Fort Worth Zoo), raised \$7,000 when her painting was auctioned off on eBay. All proceeds from the 7,000-pound pachaderm's art went to the Red Cross International Response Fund. Meanwhile, Bozie, a resident of the Baton Rouge Zoo, also took up her brush to raise funds for victims in her native Sri Lanka. The 29-year-old female created two paintings using nontoxic, water-based paint. One of these paintings also was auctioned off on eBay with proceeds also going to the Red Cross relief efforts.

PJC Zoo Animal Technology Program / UWF Zoo Science

The Pensacola Junior College zoo animal technology program is now accepting applications for entry in August 2005. This is a two-year associate of science degree program offered as a cooperative effort of PJC and The ZOO in Gulf Breeze, FL. Our program includes general education, a comprehensive series of academic courses in animal biology, specialized zoo topic courses, and practical animal care, medical husbandry, and exhibit repairs skills courses. The degree articulates into the Zoo Science B.S. program at University of West Florida (also in Pensacola) if desired. Application packets may be obtained from the PJC biology department secretary at (850) 484-1168 or on the web at <http://itech.pjc.edu/jkaplan/zooschool/> and further information is available by contacting Joyce Kaplan, PJC zootech director, at jkaplan@pjc.edu or (850) 484-1164.

Opportunity to Study Endangered Cats in Mexico

The Dallas Zoo is currently accepting applications for its 17th Wildlife Research Expedition to the Los Ebanos Ranch in rural northeastern Mexico. From 14-27 May, a small group of expedition participants will study the behavior and ecology of small, endangered cats and birds of prey. The Dallas Zoo's Wildlife Research Expeditions offer paying volunteers a chance to work in the field on research projects or conservation programs. Five to seven individuals will be chosen to participate in the research study in Mexico.

The participants, working with field biologists and local assistants, will help capture and radio-collar ocelots and jaguarundis and will aid in radio-tracking the cats to determine their home ranges, habitat use and population densities. Populations of small wild cat species have declined dramatically in the United States and Mexico because of human encroachment and loss of habitat. This research study will help scientists develop a conservation strategy to preserve these cats in the wild. A second element of this Wildlife Research Expedition will be capturing raptors, or birds of prey, to assess their migratory patterns and nesting behaviors. Participants will take data on the birds, band them and release them.

The study site is the privately-owned Los Ebanos Ranch on the Gulf of Mexico in Tamaulipas. The ranch includes 2,000 acres of tropical deciduous forest, 500 acres of mangrove forest, 1,500 acres of grassland and more than two miles of undeveloped beach. The ranch is also home to many species of exotic birds, including Amazon parrots.

The trip will be led by Sue Booth-Binczik, research technician at the Dallas Zoo. The on-site project leader is field biologist Arturo Caso, who has been studying endangered cats in Mexico for many years. No experience is necessary; on-site training will be provided. Conditions on the ranch are luxurious for a field study! Participants will stay in attractive lakeside bungalows with toilets, showers

and electricity. The ranch cooks prepare three meals each day, and water on the ranch is purified well water.

The cost of the trip is \$1,700, including roundtrip transportation to the study site from Harlingen, Texas. (Participants must get to Harlingen on their own.) Some trip expenses are tax-deductible. Deadline for application is **14 April 2005** – slots are filled on a first come-first served basis. For more information, contact Dr. Booth-Binczik at 214-671-0777 or dzconsrc@airmail.net<

Zoo Literature Website Available

A new website dedicated to zoo literature has been launched at www.zooliterature.co.uk< On this brand new website you will currently find: 1) An introduction in English, German and Dutch; 2) 488 guidebook covers from 180 animal collections, with more to come; 3) 63 book covers, with more to come; 4) IZES and Bartlett Society journals with full article index to every issue; 5) Illustrated coverage of rare marine mammals in captivity; and 6) Digital photos from the 2003 zoo literature exchange event in Vienna and the most recent one in Arnhem. This site will continue to be updated with new information so check it out frequently. *from International Zoo News No. 48, Oct-Dec 2004*

Indianapolis Zoo Announces World's Largest Animal Conservation Award

The Indianapolis Zoo has announced the establishment of the Indianapolis Prize, an award given every other year to an individual who has made significant strides in animal conservation efforts. The first recipient of the \$100,000 award will be announced at a gala ceremony in Indianapolis scheduled for September of 2006. The Indianapolis Prize represents the largest individual monetary award for animal conservation in the world and will be given as an unrestricted gift to the honoree. The Eli Lilly Company has pledged startup funding for the Indianapolis Prize and the recipient will also receive the Lilly Medal.

Nominees must have accomplished an individual achievement or series of achievements that have resulted in a demonstrable positive impact on an animal species or group of species that is likely to improve the species' likelihood of long-term sustainability. It must be demonstrated that this improvement in long-term sustainability was the result of direct and specific actions of the nominee, and the impact of achievements under consideration must be clearly recognizable when evaluated by the Nominating Committee and Jury whose members represent experts in the scientific and conservation fields. If you'd like a nominating packet or for more information, just send an email to: Chair of the Indianapolis Zoo Board of Trustees Myrta Pulliam at mpulliam@indyzoo.com<

Deadlines for the AAZK Grants

AAZK-Geraldine Meyer Professional Travel Grant

2 Grants available at:	\$1000.00 each	
Application Deadline:	February 1	(mid-year consideration)
Application Deadline:	July 1	(end of the year consideration)

AAZK/AZA Advances in Animal Keeping Course Grant

1 Grant available at:	\$1000.00	
Application Deadline:	July 1	(of the year before the actual class)

Conservation, Preservation and Restoration Grant

1 Grant available at:	\$1000.00	(or split between several small projects)
Application Deadline:	June 1	(of the year before the actual project)

Research Grant

2 Grants available at:	\$1000.00	(or split between several small projects)
Application Deadline:	June 1	(of the year before the actual project)

CORRECTION

In the article "Enrichment for a Pair of Captive Whooping Cranes at the Devonian Wildlife Conservation Centre" there was an error due to some text being truncated in the production process. The fourth and final paragraph under *Materials and Methods* should read as follows:

"During the first ten days no enrichment item was given in order to obtain baseline data. The cranes were given a different enrichment item for each day 11-20. On days 21-30 no enrichment was given to observe post-enrichment behaviour. The enrichment items included: a variety of plant material, crickets in an empty plastic milk jug with holes cut into it, mealworms, freshwater invertebrates, rotting logs, corn on the cob, green pepper, watermelon, feeder fish, scatter feed of oats, corn, rice, sunflower seeds and peanuts, a sprinkler and fruits and vegetables in ice."

We apologize to author Kim A. Todd for this error.

AZA Conservation Endowment Fund

Application, instructions, and other new information for the 2005 Conservation Endowment Fund (CEF) are now available on the AZA website under Conservation & Science. The deadline for CEF grant applications is Monday, 2 May 2005. Please see <http://www.aza.org/ConScience/WhatIsCEF/> for further information on the CEF Program and the application process.

Attention Cover Artists!

We are currently soliciting artwork for the covers of upcoming issues of *Animal Keepers' Forum*. Potential artists should submit their work to Susan Chan, AKF, 3601 SW 29th St., Ste. 133, Topeka, KS 66614-2054. Black and white pen and ink drawings reproduce best for AKF, but other mediums will be considered. When sending hard copy of artwork, be sure to include cardboard stiffener so it will not be damaged in transit. Artists may also submit artwork electronically as either jpeg or tiff files sent as attachments to akfeditor@zk.kscoxmail.com. Original hard copy artwork will be returned upon request. Artists should include a brief natural history paragraph on their subject species when submitting their artwork. No promise of publication is made by this announcement.

Call for Papers - Dedicated Issue

The *Animal Keepers' Forum* is dedicating an issue this summer to the Cheetah (*Acinonyx jubatus*). We are looking for papers and information pertaining to the cheetah. Topics of interest include husbandry, enrichment, training, reproduction, veterinary, education, conservation, and research. We would also like to include bibliographies, websites, or any other topics pertaining to the cheetah.

Papers should be submitted according to AKF guidelines included in the front of this issue. If papers are not submitted electronically, authors should include a disk or CD of their manuscript. Photos, graphs or charts should be submitted separately and not run within the text. If sending such items electronically, manuscripts should be sent in MS Word only and graphic files should be sent as jpegs or tifs. Be sure to include photo credits. If you have any questions, contact AKF Editor Susan Chan at 1-800-242-4519 (US) or 1-800-468-1966 (Canada); or email her at akfeditor@zk.kscoxmail.com.



Deadline for submission is 15 April 2005

Coming Events

The National Wildlife Rehabilitators Association Presents Symposium 2005 "Working Together for Wildlife" - 8-12 March 2005 in Minneapolis, MN., at the Marriott Minneapolis Southwest. Hosted by the Minnesota Wildlife Assistance Cooperative. For further info contact: NWRA Central Office, 14 7th Avenue North, St. Cloud, MN 56303, (320) 259-4086, e-mail nwra@nwrawildlife.org website, <http://www.nwrawildlife.org>

From Darwin to Dawkins: The Science and Implications of Animal Sentience - 17-18 March 2005 at the Queen Elizabeth II Conference Centre, London, UK. Keynote speaker is Dr. Jane Goodall DBE, Jane Goodall Institute. Hosted by Compassion in World Farming Trust. More information and registration is available online at www.ciwf.org/conference2005

Fourth Sea Otter Conservation Workshop - 18-20 March 2005 hosted by Seattle Aquarium, Seattle, WA. Three days of papers, reports and discussion about all aspects of sea otter biology and conservation. Anyone working with sea otters in any capacity is invited to come. Pre-registration is required. Pre-registration until 11 March 2005. Info, registration and/or questions contact Dr. Shawn Larson at shawn.larson@seattle.gov

The 5th Animal Behavior Management Alliance Conference - 10-15 April 2005 in Houston, TX. Hosted by the Houston Zoo. For more info visit www.theabma.org

ASZK 2005 Conference - 29 April - 1 May 2005 at Ciloms Airport Lodge Melbourne and Werribee Open Range Zoo. Theme is "Conservation and Conditioning". Abstracts must be submitted by 25 March 2005. Information can be obtained from the ASZK website <http://www.aszk.org.au> or email Liz Romer on slromer@bigpond.com

Fourth Rhino Keepers' Workshop - 5-9 May, 2005 in Columbus, OH. For further information contact Adam.felts@columbuszoo.org

Second International Conference: Animals and Zoos, Current Research Focus - 24 - 25 May 2005 at Malta Training Centre, Wiankowa Str. 3., Poznan, Poland. Address for correspondence: "ZOO Conference", Ogród Zoologiczny w Poznaniu, Ul. Browarna 25, 61-048 Poznan. Tel. (+48 61) 61-8709502; Fax (+48 61) 877 35 33; e-mail: zoo.cwiernia@interia.pl

Fifth World Congress of Herpetology - 20-24 June, 2005 at Conservatorium for Music, Stellenbosch University Campus, Stellenbosch, South Africa. Please visit the website <http://www.wits.ac.za/haa/> or contact the organizer at conf@conferencesetl.co.za Dr. Ernst HW Baard Manager: Scientific Services Western Cape Nature Conservation Board, Private Bag 5014 7599, STELLENBOSCH; Tel: +27-21-866 8001; Fax: +27-21-866 1523; Mobile: 082-41 40 424; Scientific Services office no. +27-21-866 8000. Visit our website: <http://www.capenature.org.za>

7th International Conference on Environmental Enrichment - 31 July - 5 August, 2005, hosted by the Wildlife Conservation Society in New York City, NY. Registration fee is US \$250. Conference site is Columbia University, with day trips to Central Park Zoo

and the Bronx Zoo. Housing arrangements have been made for Columbia dorm rooms, starting at \$45 per person, double occupancy. The theme is "Unifying the Art and Science of Animal Enrichment". Please visit wcs.org/icee2005 for more information on submitting papers and registering for the conference. Please contact icee2005@wcs.org if you have any questions.

Association of Avian Veterinarians 26th Conference 8-11 August in Monterey Bay, CA. For more information or to view the entire program visit www.conferenceoffice.com/aav or you can email aav@conferenceoffice.com; phone 303-756-8380.

1st EAZA Training Seminar for Zoo Educators - 15-21 August 2005 hosted by the Copenhagen Zoo. For further inquiries, please contact Peter Haase (pnh@zoo.dk) at the Copenhagen Zoo.

28th Annual Meeting of the American Society of Primatologists - 17-20 August 2005 in Portland, OR. For more information, contact: Dr. Kristine Coleman, Chair of the local organizing committee, at colemank@ohsu.edu

First European Congress of Conservation Biology 23-27 August, 2005 in Eger, Hungary. Organized by the Society for Conservation Biology - European Section and the Hungarian Natural History Museum. This cornerstone international event will for the first time bring together academics, students, policy makers, natural resource managers and NGO representatives from all over Europe to address all aspects of conservation biology from research to application. Please visit the website (<http://www.eccb2006.org>) for details, and register for new information.

32nd AAZK National Conference - 28 August - 1 September 2005. Hosted by the Audubon AAZK Chapter and the Audubon Nature Institute. Watch *AKF* in the coming months for more information.

26th Annual Elephant Managers Association Workshop - 5-9 October, 2005 in Portland, OR. Hosted by the Oregon Zoo. Pre-conference trip will be to the Point Defiance Zoo (5 Oct.); the post-conference trip will be to Wildlife Safari (10 Oct.). For more information please visit their website at <http://www.oregonzoo.org/ElcphantWorkshop> or email elephants@metro.dst.or.us

Second International Congress of Zookeeping (ICZ) 7-11 May 2006 in Gold Coast, Queensland, Australia. Visit website: <http://www.iczoo.org> for latest information. See information on First Call for Papers in the November 2004 issue of *AKF*.

2006 International Gorilla Workshop - 23-26 June 2006 at Paignton Zoo, Devon, England. Will include Icebreaker, three days composed of plenary sessions, discussion workshops and zoo visits. Post-conference tour will include several significant U.K gorilla/primate collections including Howletts and Port Lympne Zoos. Watch here for further information.

Post Your Coming Event Here - email to:
akfeditor@zk.ksoxmail.com

AAZK Seeks Applicants for Webmaster Position

The American Association of Zoo Keepers Inc. is looking for a new webmaster or web designer. Please review the position overview, qualifications, terms of employment, and instructions on applying if you are interested in this position.

Position Overview - This position will oversee and implement the website for the American Association of Zoo Keepers, Inc. AAZK is a nonprofit (U.S. 501c3) volunteer organization made up of professional zoo keepers and other interested persons dedicated to professional animal care and conservation. AAZK shall endeavor to create and maintain a website and/or web pages. This website shall receive approval from the current Board of Directors of the American Association of Zoo Keepers, Inc. This website shall be reviewed annually by the Board of Directors/AAZK and shall be under the oversight of a Board Member appointed by the President of the Association. AAZK shall maintain, develop and maintain criteria for the content and management of the site to include conformation to the Articles of Incorporation and the published Statement of Purpose for the Association. The webmaster will interface with the staff of Administrative Offices as well as the Board of Directors for website content. The webmaster will be expected to update the site on a regular basis as needs arise for the Association. Qualifications for the position are listed below.

Qualifications:

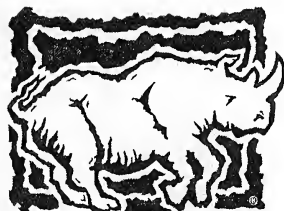
- Expertise in current Internet standards, including Web browsers and browser specifications.
- In-depth knowledge of one or more current web markup or scripting languages: HTML, XHTML, CSS, Javascript.
- Experience with at least one desktop publishing/imaging application in each of the following categories:
 - o Photo Editing (Adobe Photoshop, Paint Shop Pro)
 - o Drawing (Macromedia Freehand, Adobe Illustrator, Corel Draw)
 - o Page Layout (Adobe Pagemaker)
 - o Presentation (MS PowerPoint)
 - o Multimedia (Macromedia Director, Flash, streaming audio and video)
 - o Others (Adobe Distiller/Exchange, GifBuilder, GifConverter, 3ds Max, etc.)
- Experience with managing web site content.
- Ability to learn new Internet and authoring technologies relevant for web site development.
- Strong background with one of the following OS's and familiarity with the others: Windows (ME/ 2000/XP), Mac, Unix (Linux).
- Understanding of dynamic or active web content and the use of Perl, C/C++, CGI, and/or SQL.
- Ability to manage e-commerce (PayPal*) content and shopping cart design.
- Ability to clearly document all projects and track time efficiently and submit invoices.
- Effective verbal and written communication skills and the ability to interact professionally with staff and Directors.
- Experience with developing password protected or "Members Only" sections of websites or the ability to learn this technology.
- Attention to detail is required.

Terms of Employment - The period of employment for this position commences upon hire and continues for one year. A Memorandum of Agreement is to be signed by AAZK Inc. and the webmaster. The MOA's one year term will be reviewed annually and is subject to termination or renewal by either the webmaster or Executive Director of AAZK at the end of the one year period. Simple updates to the website would be capped at a maximum of 4 hours per month. Re-designs or large projects would require a bid of anticipated time and cost be submitted to the Board of Directors for approval. This position is not a full time position nor is it expected to become full time. It is not expected to be the sole source of income for the individual who takes the position.

To apply: Please submit a resumé or curriculum vitae and a salary offer (hourly) to the Administrative Offices at: AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054. Include the web addresses of any websites currently designed or maintained by the applicant for review by the Board of Directors. **Deadline for applications is 30 April 2005.**

From the Executive Director

So why is it that we (the President of the Association and I) have to beg and plead to our membership in order to get a full slate of candidates to run for the Board of Directors of this Association?



**AMERICAN
ASSOCIATION
of ZOO KEEPERS**

Is being a Board Member for this Association that bad of a deal? Having been there, years ago, I don't think so. We're asking for professional representation of our membership. Being a Board Member literally takes about eight hours, a month, if that. No previous experience required. Actually new and fresh ideas and perspectives are preferred.

You really should consider running for the Board. There is no rule that says you have to be a Professional member of this Association for a minimum number of years, you just have to be a Professional member, willing to contribute and communicate with the membership. The worst possible aspect of the job is a little public speaking at each conference, and nobody has suffered permanent mental or physical harm from that task, yet.

You have already contributed to your profession, by performing your daily job tasks to the best of your ability. You may have contributed to this Association on the Chapter level, by being an officer or working on Bowling for Rhinos. Now's your chance to contribute to the bigger picture and contribute to the profession on a national level. Give it a shot.

Ed Hansen
Executive Director, AAZK. Inc.

INFORMATION PLEASE

I'm seeking information from institutions housing okapis in their collection. I would like all kinds of information regarding housing, feeding, breeding, medical care, foot training, enrichment practiced, introductions, etc.....

I also would appreciate if you could send me a few pictures of your okapi's enclosures showing the following views : outside exhibit, inside pens, trees and plants species exhibited in the enclosure, enrichment provided, system of doors used between the outside and inside accommodations, point of view from visitor's path, etc..... Thank you very much in advance for your help.

Please send information to: Mickal Michault, African Mammal Keeper
Branfere Animal Park - 56 190 Le Guerno (France)

Overview: Zoos and Aquariums: Committing to Conservation Conference

By Joanne Luyster, Keeper II
Louisville Zoological Garden, Louisville, KY

The Brevard Zoo hosted the 2005 Zoos and Aquariums: Committing to Conservation [ZACC] Conference, held in Cocoa Beach, FL, the last week of January. This conference, which began ten years ago, draws participants from zoological institutions, aquaria, NGO's, and the field, and addresses the role of zoos in supporting *in situ* field research and conservation. ZACC concentrates on facilitating networking among colleagues, specifically focusing on practical applications that support *in situ* conservation efforts. Over 200 people participated in this year's conference, representing 45 zoos, 14 countries, and five continents. In addition, 75 high school students attended the first day's sessions.

A pre-conference workshop on North American conservation initiatives preceded the formal sessions. Speakers stressed that it is important for zoos to focus on North American conservation efforts because it sets an example, and signals to the rest of the world that we are "getting our own house in order." In addition, these initiatives can inspire zoo visitors to become involved in projects in their own backyard. Featured programs included the Wildlands Project, whose mission is to "restore, reconnect, and rewild" North America by linking large wilderness areas, and AZA's Field Conservation Committee [FCC]. FCC is currently coordinating the formation of regional conservation consortiums that will determine conservation priorities for a region, and then define projects that would benefit from zoo partnering, thereby providing small zoos with the opportunity to participate in field conservation projects.

Throughout the conference sessions, several common themes unfolded:

- Make conservation an integral part of your zoo culture
- Form partnerships and work in collaboration
- When educating the public, present a positive vision, and offer ways in which people can help attain that vision
- Begin to focus conservation efforts on projects that emphasize creating "megalinkages" of wilderness areas

Keynote speakers included *National Geographic* photographer Michael "Nick" Nichols; Steve Galster of WildAid, an organization whose mission is to decimate the illegal wildlife trade within our lifetime; and Dave Foreman, of The Rewilding Institute. Mr. Foreman's book, "Rewilding North America," asserts that there is greater biodiversity when top predators are re-established, and emphasizes the need to address conservation on a continental scale. In acknowledging our responsibility to conserve nature, Mr. Foreman stated that "animals have intrinsic value; we have a moral obligation to preserve them and allow them to unfold their evolutionary potential."

The remaining program consisted of sessions featuring zoo conservation initiatives, from building exhibits in other countries to providing educational materials, and reports from field researchers. In addition, participants engaged in roundtable discussions on fundraising ideas to support conservation, and implementing sustainable ["green"] practices in-house.

In the final session, field researchers listed their top two needs for their projects. This "wish list" is available for zoos and individuals that would like to fund these requests. Correspondingly, several field projects offered handicraft items for sale that supported their *in situ* conservation efforts. The conference as a whole also offered field support; \$10 of each registration fee was collected and donated to a designated *in situ* conservation project, the Turtle Conservation Project [TCP] in Sri Lanka. This project was devastated by the tsunami. Besides losing two of the three research stations, three researchers were killed and many lost their homes and family members.

In conclusion, this conference provides insightful, engaging presentations, offers unique networking opportunities, and specifies ways to support fieldwork. The next ZACC conference will be in Houston in 2007, and I urge everyone interested in field conservation work to attend.

I would like to thank AAZK for awarding me a Geraldine Meyer Travel Grant. I also want to thank the Louisville AAZK Chapter, Louisville Zoological Garden, and the Brevard Zoo for their support, which allowed me to attend this conference.

Call for Papers - Volume II

Resources for Crisis Management in Zoos & Other Animal Care Facilities

The American Association of Zoo Keepers, Inc. (AAZK) is seeking submissions for our newest reference/resource publication, Volume II of *Resources for Crisis Management in Zoos & Other Animal Care Facilities*. Subject matter should be applicable to crisis management, zoological safety, emergency preparedness planning, public relations, case histories, and staff training. Papers should not exceed 10 pages in length with one-inch margins, conform to MLA standards, and should be submitted as a Word Document attached to an email that includes author contact information. Photos and other graphics should be submitted as either jpeg or tiff files. Authors should also submit a one-paragraph biography to accompany submission.

Author abstract deadline is set for **1 July 2005** with a final paper submission deadline set for **30 September 2005**. Publication is planned for 2006.

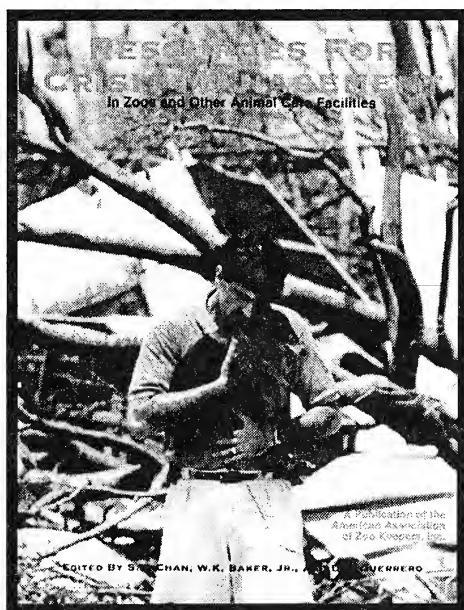
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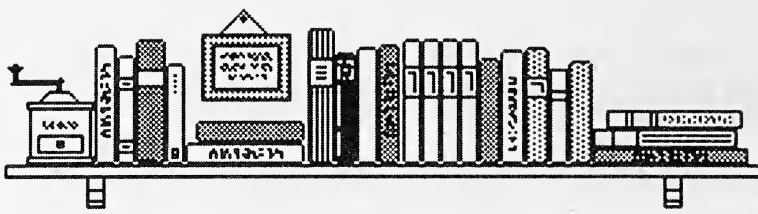
Susan Chan, Senior Editor:
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or

Bill Baker, Associate Editor:
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The First Volume of the *Resources for Crisis Management in Zoos & Other Animal Care Facilities*, published in 1999 was a bestseller, selling out with copies still being requested. We hope to make Volume II just as useful to animal care professionals. We hope you or your institution will consider submitting an article for this important reference work. We can all learn from crisis situations that have occurred at our own facility, and sharing information may help another facility avoid just such a crisis or, at the very least, be better prepared to handle it. We all benefit from sharing our experiences.





Book Reviews

Guide to the Amphibians and Reptiles of Japan

By Richard C. Goris, Ph.D. and Norio Maeda, Photographer, 2005

ISBN 1-57524-085-8

Published by Krieger Publishing Company, P.O. Box 9542, Melbourne, FL, 32902

296 pgs Cloth \$69.50

*Review by Shea Cogswell
Topeka, KS*

Guide to the Amphibians and Reptiles of Japan by Richard C. Goris and Norio Maeda is a useful reference guide for those who are interested in going to Japan to study the reptile fauna that live there or are wanting to compare this variety of reptiles to others in different countries. The information is given in an easy to use manner and out of the 147 reptiles mentioned only nine do not have photographs to share with the text. The vivid photography that captures the animals in close-up range is wonderful. The photographs help the reader become more familiar with the detailed markings and colorings of the animal. It also shows a little of what each reptile's habitat looks.

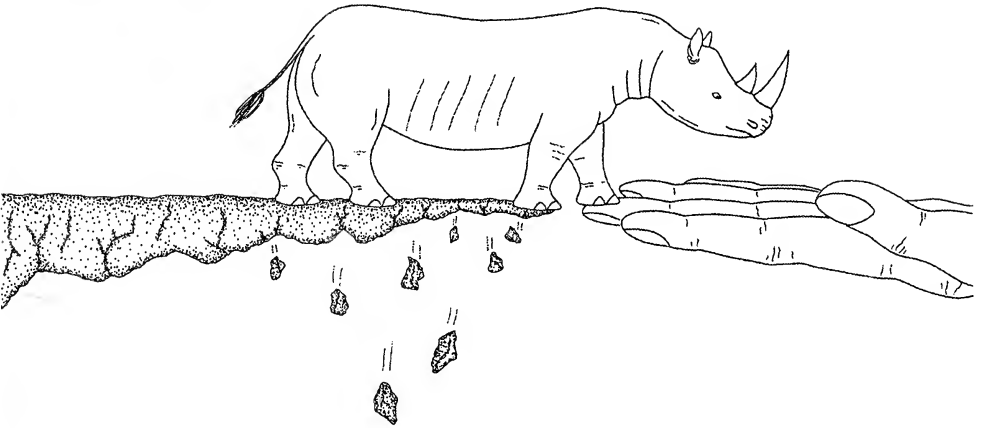
The book begins with a list of contents that are in alphabetical order for each section of reptiles. The only time the common name is used is for the large grouping of the reptiles. The reader of the book will need to know the scientific name of the individual animal that is to be looked up.

Following is a short historical section on the environment the reptiles live in. It is an interesting account of the reptiles' environment and gives background information of the agricultural history and the changes that happened and how it affected these animals. A map of most of the Japanese Islands is noted here and a list of the island names. This map is important to note because there are similar maps under each reptile discussed that highlights the home range of that particular animal. It's also important to note the maps are not scaled to the exact size of the islands, but the information is useful and educational to the reader.

The information on the large variety of reptiles follows the historical section. Each section has the same format. It begins with the section title and the names in each section. Then the scientific name is given with the last name of the person who found the animal and the year that it was first found. The person's name and the year are in parentheses. The Japanese name comes next followed by the English meaning in quotation marks. At times, this seemed unnecessary because the name in English was the next line and most of the time the wording was the same as the line above. The information given about the animal was divided into sections beginning with the identification, confusing species, distribution, reproduction, habits (behavior) followed by the last section called notes. This area was particularly interesting because it was facts and trivia highlighting each animal and made it even more interesting and fun to learn about them. The section called confusing species could be very beneficial to the person who is comparing the animal to others or is trying to learn what that particular animal would look like on sight. The maps of the Japanese Islands are usually included somewhere within the sections of identification and confusing species and the home range is colored in red to easily catch the eye. The bibliography and index follows the sections of animals.

The book is written for people who have some knowledge about reptiles. It wouldn't be as useful for the person who is starting to study and research animals because of the scientific terminology and names used within the book. With this in mind, a glossary would be helpful to the reader and help to get readers who are not yet familiar with the biological terms that are used within the book more interested in reading it. Perhaps descriptions of the names of the groups of animals would be helpful to catch the attention of a wider audience also. The book has a lot of interesting and unusually fun information in it and would be helpful in the study of reptiles from Japan.

Bowling for Rhinos 2005



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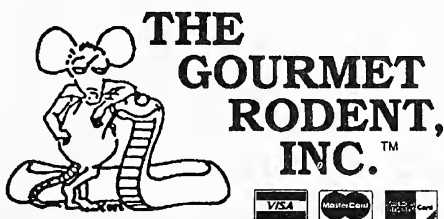
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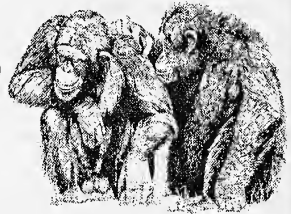
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Kenya 101 - Highlights of Kenya



- Possible departure November 2005
- Details to follow!!

REACTIONS

A Question and Answer Forum for the Zoo Professional on Crisis Management



*By William K. Baker, Jr., Curator
Panthera Research, Maumelle, AR*

Question

In a natural disaster, what emergency items do you recommend for both personal animals and those at a zoological facility?

Comments

Natural disasters have the potential to be the most devastating of all potential hardships to strike a zoo or wildlife facility. Essentially, if you are in an area that is prone to flooding, hurricanes, or tornados you unfortunately have to plan for the worst including complete evacuation if it gets that bad. However, the senior staff at a facility should weigh a potential evacuation very carefully, as it may be unnecessary. Several facilities have successfully weathered hurricanes with limited loss of life. Thankfully most exhibits and night houses that hold dangerous animals are heavily reinforced and tend to do well in severe weather circumstances.

Zoological Emergency Items:

Historically, the approach that I have worked from is that crisis equipment can be broken down into two classes, Dedicated Crisis Equipment, (DCE) that is utilized in the event of an actual crisis and Emergency Support Equipment, (ESE) which is utilized after the fact.

- I. Crisis Management Equipment
 1. Dedicated Crisis Equipment (DCE)
 - A. crisis response equipment
 - a. firearms and dart rifle
 - b. flashlights and binoculars
 - c. first aid and trauma kits
 - d. animal capture and restraint
 - B. rescue equipment
 - a. ladders
 - b. tool kit
 - c. entry tools
 - d. cutting torch
 2. Emergency Support Equipment (ESE)
 - A. vital services equipment
 - a. generators and pumps
 - b. lights, heaters, and fans
 - c. animal transport crates
 - d. propane heat units and tanks
 - B. fabrication equipment
 - a. tool kits
 - b. netting and shade cloth
 - c. containment material
 - d. construction material

For the purposes of this discussion, I'll focus on Emergency Support Equipment. Effectively, this is the equipment that will allow a facility to resume operations or provide some sense of normalcy after the crisis has occurred.

Vital services equipment is the equipment that will actually restore or maintain the utilities, which most facilities rely upon for water, electrical, and gas. Water storage units or towers can replace broken water lines. Back-up or stand-by generators can replace disrupted electrical grids, which in turn provides lighting, heaters, fans, hot-wires, and pump units. Propane can effectively replace broken gas lines which provides heat, hot water, and in some cases power for generators.

Fabrication equipment is best described as building materials specific to providing temporary shelter, temporary containment, or utilized to repair existing structures. This can literally run the gamut from tools to actually perform the repairs all the way up to and including building materials. Examples would include plywood (multiple thickness), screws, nails, staples, tar paper, roofing materials, treated posts, 1x1" mesh, 2x4" mesh (8-gauge), solar powered hot-wire systems, 1x1" netting (rolled), steel cable and tension bars, eye hooks, bagged concrete, shade cloth, plastic zip ties, portable cattle panels and caging units, water and feed buckets, sheet metal, angle iron, welding rods and a portable welder. Actually, this list could go on forever as every facility is a little different from the next and the needs will shift based on exhibit design and the diversity of the animal collection.

I also try to place with this material one completely stocked fabrication tool kit, one portable generator, one portable pump, one cutting torch unit with full bottles on a dolly, plus a power cutter and grinder. The associated safety equipment such as gloves, glasses, and hearing protection are usually factored in as well. The fabrication type of tool kit usually could best be identified as a master set in a large rolling cabinet or job-site style toolbox. Either way, the only limiter is how much money that you want to spend. Ideally, the more you can spend, the better off you and the facility will be when the need arises. I recommend a lifetime guarantee brand such as Craftsman®, Kobalt®, Snap-On®, or any of the other brands that are popular with mechanics. Each set should have the full range of tools including wrenches, ratchets, screwdrivers, nut drivers, pliers, hammers, hex and Allen wrenches, and saws. Focus on tools that don't require AC power to function.

The hardest part in my experience is protecting this windfall of materials and equipment from the "scrounger", the person who never remembers to submit a budget request, but is the first to strip your supplies over time and thinks of it as their private stash. Then when the facility is struck with a crisis, there is little or nothing left.

My answer to this problem is to purchase a "Conex-style" storage container, such as those used by air and sea freight companies, steel in nature, and equipped with lockable hardware they provide a secure and dry place to store virtually anything. I recommend using a high quality lock with extremely limited key access and partially burying the unit in the ground with concrete retaining walls to prevent potential damage in severe weather, (tornado or hurricane). Once complete, this storage unit can supply a small repair crew with most anything they could need or want. Final point, I do recommend installing battery-powered lights inside the unit as they can get quite dark.

Personal Emergency Items:

The best way I have found is to focus on the basics, not unlike last month's column on vehicle supplies, you will need food, water, and shelter. What follows is by no means a complete list that the Red Cross distributed years ago and I then customized to meet my needs.

Personal Supplies

- Water – I normally plan on (1) liter of water per person per day, (2) liters if you factor in personal hygiene. Plan on a 3-day supply.
- Food – Plan on ready-to-eat foods that requires no refrigeration. Powdered and dry goods, dehydrated foods, and high-energy foods.
- Shelter – Tents, plastic or canvas tarps are all good choices.
- A synthetic sleeping bag.
- A multi-person first aid kit with minor trauma capabilities.
- A non-electric can opener.
- Sun block and pest repellent.
- Waterproof flashlight and extra batteries.
- Waterproof matches.
- A compass and detailed map of your local area, (store in a zip bag).
- World band radio and extra batteries.

- Cash, traveler's checks, and a credit card.
- A portable multi-purpose toolbox.
- Shut-off wrench to turn gas and or water service off.
- Personal hygiene and sanitation supplies.
- Personal medical or prescription based drugs, (insulin, etc.)
- Prescription glasses and/or contact lens.
- Rain gear, gloves, sunglasses, and thermal underwear.
- A small broiler or disposable grill.
- Important family documents and records, (especially insurance policies, birth records, passports, and a household inventory).
- Pet supplies such as food, water, Vari-kennels®, medications; basically anything you can think of. Shelters are primarily set up for people.
- And of course, something to store all of this in. The clear plastic footlockers I have seen lately at the super stores would work nicely.

Next Month: What type of advance precautions do you recommend for free-contact training work with dangerous animals?

If you would like to submit a question for this column or have comments on previously published materials, please send them to AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614 Attn: Reactions/AKF

(About the Author: Since 1985 Bill has been active in the fields of science, zoology, and wildlife management. His education and experience include a B.S. in wildlife management and post-graduate studies in zoology, Lab and Museum Assistant, Shoot Team Leader, ERT Member, Large Mammal Keeper, Senior Keeper, and Zoo Curator at various zoological facilities. His area of research is crisis management in zoological institutions, which draws upon practical experience and training as a Rescue Diver, Hunter Safety Instructor, NRA Firearms Instructor, and Red Cross CPR/First Aid Instructor.)

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TECHNOLOGY AND TOOLS FOR THE 21ST CENTURY™

Wild Chinchilla Conservation and Education

By

Amy Deane, *Save the Wild Chinchillas, Inc., Chile*

Pete Riger, *Keeper, Houston Zoo, Houston, TX*

Chinchillas are caviomorph rodents which once roamed the Andes of South America. Two species of chinchillas are recognized as: *Chinchilla brevicaudata* (Blue Bolivian Chinchilla), and *Chinchilla lanigera* (Lanigera) (Nowak, 1991; Jimenez, 1996). *Chinchilla brevicaudata*, the short-tailed chinchillas were hunted severely and is endangered. Its native range included the Andes of Peru, Bolivia, Chile and Argentina. The long-tailed species, *C. lanigera*, has been listed as endangered and was thought to be extirpated from its original range which included the foothills of the Andes in Chile from northwest of Potrerillos south to Region IV (Jimenez, 1996).

Chinchillas are originally gray in color with a small squirrel-like body, large mouse-like ears and a bushy tail. The characteristic that they are best known for is their plush fur. Where humans have one hair from each follicle, a chinchilla has more than 50 hairs from a single follicle (Meadow, 1969). Neonatal weight of chinchillas is 35 grams [1.234 oz.] (Weir 1974), and average adult weight for wild non-pregnant adults was 410 grams [14.5 oz.] (N= 24). Length of lactation is between six and eight weeks and the animal has a gestation period of 111 days (Redford and Eisenberg, 1992). The breeding season for chinchillas in Chile has been reported as biannual with its onset in the austral spring (Hayssen, Tienhoven & Tienhoven 1993). One or two young are born eyes open, fully furred, and active. Sexual maturity is around eight months. Females can have up to two litters per year (Weir, 1974). When compared to other rodents, chinchillas have a long gestation period resulting in few offspring. Chinchillas are nocturnal and live in colonies. Chinchilla are endangered because of hunting and trapping of the animals for its pelts. Between 1895 and 1921 over three million chinchilla pelts, including a small number of live animals, were exported from Chile. Some authors report that more than 21 million chinchillas were actually killed between 1840 and 1916 and only a fraction of those caught were able to be exported (1996). An estimated 21 million were killed, reports of which show that 7,179,640 pelts were exported from Chile between 1828 and 1916 (Iriarte, 1986; Jimenez, 1994). Chile enacted protection in 1898, but protection from hunting was probably too late for the existing wild populations (1994, Thornback 1969).

Exploitation for the fur trade to markets in Europe and North America started by the onset of the 19th century and demand for the pelts continues today. Requiring a hundred pelts per coat, this fur is among the most expensive and rarest in the world. "In 1928, a coat made of Bolivian pelts cost half a million gold marks" (Bickel, 1937). In 1992, a domestic chinchilla fur coat on sale at Elan Furs (Indianapolis, IN) cost \$22,000.

Upon rediscovery of wild *C. lanigera* in central Chile during the mid-1970's, a series of studies on these endangered rodent populations have tried to understand chinchillas, their habitat and populations which continues to decline. About half of the wild population is located within a fenced reserve. About 5,000 individuals are located on private unprotected land (Jimenez, 1995).

Protected wild populations continue to decline. Chinchilla habitat is threatened by human land alterations in north central Chile. Without funds, research and conservation wild populations will be extinct in the near future (Jimenez, pers. comm.). Although these animals are protected, their habitat continues to be destroyed. Grazing animals, collection of wood and mining harm this endangered animal's last known habitat.

The chinchilla population declined steadily because of hunting and trapping. At the end of the nineteenth century, the once abundant animals had become endangered. Humans were hunting and trapping the animal for its fur faster than the animal could repopulate themselves resulting in scarcity of the species. According to Meadow (1969), "the disappearance of the once beautiful chinchilla alarmed the South American governments of Chile, Peru, Bolivia, and Argentina. By 1918 all of them had placed an embargo on exportation of chinchilla furs, and had laws against trapping the animal."

Any existing (or surviving) chinchillas were included among the endangered wild species mentioned in Appendix I of the 1973 Convention on International Trade in Endangered Fauna and Flora" (Stehnke, 1990; Nowak, 1991; Thornback, 1969). CITES places a ban on the exportation and importation of the animals and their pelts among agreeing countries. Although wild chinchillas' range once extended to Peru and Bolivia, it is now extinct there (Thornback, 1969; Jimenez, 1994). Currently, the International Species Inventory System (ISIS) lists *Chinchilla brevicaudata*, which moves between Critically Endangered and "believed to be extinct" in the wild depending on sources, and *Chinchilla lanigera* in numerous captive collections. The IUCN stated that "*C. brevicaudata* may still exist in the inaccessible area where the borders of Argentina, Chile and Bolivia meet. There have also been unconfirmed reports of *C. brevicaudata* in northern Chile in the Lauca National Park as late as 1970. The conditions in Bolivia's Sajama National Park would be ideal for the species' survival but, there is no official record of their presence". (IUCN, 1982). In Chile, wild chinchillas are listed as "En Peligro" or endangered (CONAF, 1988).

As early as 1937, people recognized chinchilla populations had been severely altered but could probably "re-establish itself in 7 or 8 years" (Bidlingmaier, 1937). Since Reserva Nacional Las Chinchillas- CNR's establishment 21 years ago, the animal has not re-established itself. Populations within the reserve continue to decline without clear explanations (Deane, non-published data; Jimenez, 1994).

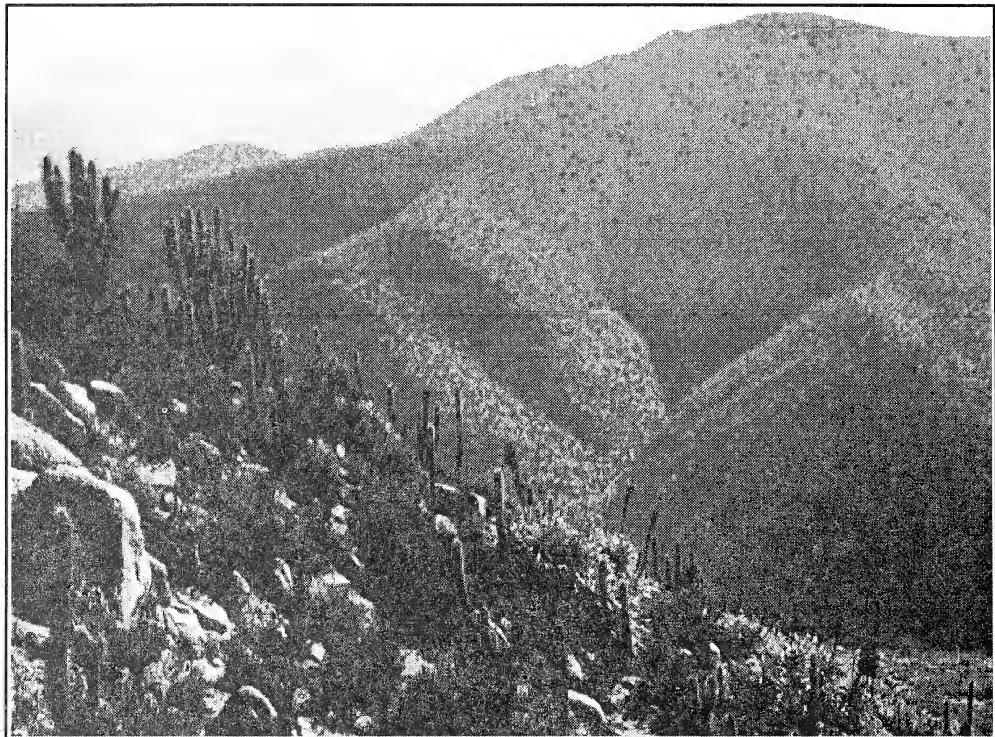
How fast can the animal reproduce and achieve recruitment? If a mated pair has two offspring which survive in their first litter, replacement of the original pair has occurred. Any additional offspring are seen as recruitment or population growth. Recruitment leads to higher populations, our optimal goal.

C. lanigera's original range included the foothills of the Andes in Chile from northwest of Potrerillos south to Rio Choapa (1996). Wild *C. lanigera* was thought to be extinct (Noguer, 1970). In the mid-70's, this species was rediscovered in providence IV, Region de Coquimbo, Chile. To protect these colonies, Corporacion Nacional Forestal -CONAF (the Chilean Park Service) established Reserva Nacional Las Chinchillas-CNR in 1983. The reserve encompasses over 4,000 hectare. This area lists 15 predominant species of mammals including the endangered Pampas Cat (*Felis colocolo*) as well as over 35 species of avifauna.

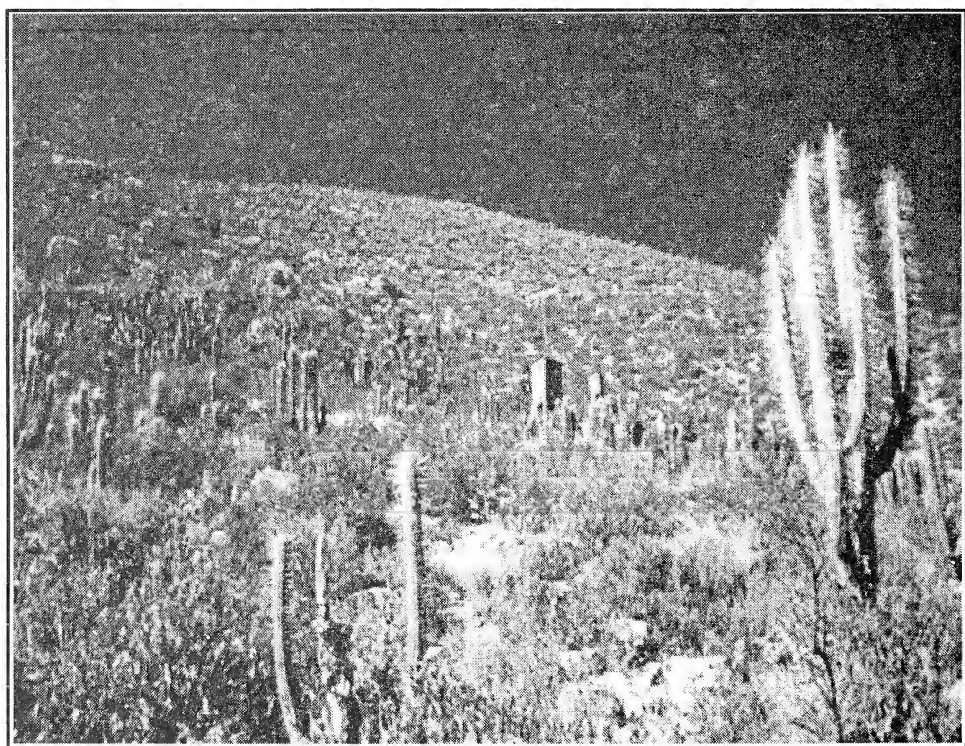
Today, two disjunct populations of *C. lanigera* are located in this region of Chile. The northern distribution near La Serena has one colony encompassing 46 ha (Jimenez, 1995). Located 250 km south near Illapel are approximately 40 colonies (1995). These colonies house fewer than 4000 chinchillas (recalculated from Jimenez, 1995). Less than half of the known colonies are within the reserve. Sixty percent of the colonies "had less than 50 individual whereas none had more than 500 individuals" and covered from fewer than two to more than 113 ha (1995). Most colonies are located on northern facing slopes but rocky southern slopes also host some chinchillas.

Central Chile is geologically complex. In this region coastal mountains meet the Andean Range. These are crossed by transverse mountain chains. Topography changes abruptly and the sandy foothills of the Andes prove to be a difficult terrain for humans to climb. The area is dissected by an meandering intermittent river channel that is dry most of the year. This area is a semi-desert biome with two distinct seasons: a dry hot season and a mild wet season. Annual rainfall between 1980 and 1996 averaged 18 cm, most occurring during the winter wet season of June, July and August. Vegetation assemblages are characteristic of semi-arid and mediterranean climates and include many cacti and succulent species (Veliz, 1985).

Most Chinchillas burrow to create tunnels within *Puya berteroniana*, cardon plant (Mohlis, pers. comm. 1995). A succulent, terrestrial bromiliad, cardon can be found on equatorial slopes. Practices of trying to encourage, entice or force chinchillas out of their protective burrows led to the destruction of habitat. Chinchilleros (chinchilla trappers) used smoke, fire and explosives "to drive chinchillas out of their burrows" (Jimenez, 1995). Disturbing their habitat can increase stress and place the animal in alert and defensive behaviors. This disruption reduces the amount of energy and time chinchillas have for rest and reproduction. Furthermore, structural damage to burrows can block tunneling systems which the animal depends upon for safety when escaping from natural predators which include foxes and birds of prey. A small proportion of chinchillas live in crevices among rocks.



Puyas (*Puya berteroniana*) y Cactus (*Eulychnia acida*), R.N. Las Chinchillas, Aucó, IV Región



Colonia de Chinchillas (*Chinchilla lanigera*), R.N. las Chinchillas, Aucó, IV Región

Second Call for Presentations



The theme for this year's conference is "Bring Out Your Wild Side, New Orleans Style". We are looking for papers, posters, workshops or roundtables that include the inspirational and motivational aspects of the zoo keeping profession. Presentations involving all taxons are desired. Topics of interest include husbandry techniques, training, enrichment, education, exhibit design, conservation, research and professional development.

Include the following information with each abstract:

- Name and title of presenter(s)
- Institution
- Address, including email and phone number(s)
- Type of presentation (paper, poster, workshop or roundtable)
- Title of presentation
- Short bio of presenter (about 100 words, for introduction)
- Audio/Visual needs (not available for posters)

Abstracts should be 100-150 words. Abstracts must include in detail the significance of the topics to be presented along with results, conclusions or benefits of the work described. Poorly written or incomplete abstracts will be returned!

DEADLINE FOR ABSTRACTS: 1 JUNE 2005

DEADLINE FOR PAPERS: 28 JULY 2005

Send abstracts by email to aazk2005@auduboninstitute.org<

Or, submit two copies of the abstract to:

Michelle Muniz or Sheila Barrios
Audubon Zoo
P.O. Box 4327
New Orleans, LA 70178

Sheraton New Orleans Hotel
500 Canal Street
New Orleans, LA 70130
(888) 627-7033 FAX (504)561-0178
sheraton.com/neworleans

American Association of Zoo Keepers National Conference
August 28-September1, 2005
Hotel Reservation Form
Reservation Deadline is: July 27, 2005

ONLY ONE REGISTRATION FORM PER ROOM. Fill it in completely with each roommate's information. All major credit cards are accepted for a guaranteed room. Room deposit is refundable if notice is received at least 72 hours prior to arrival and a cancellation number is obtained.

***** DO NOT send this form to the Audubon Zoo *****

	Main House	Club Level
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Add Person	\$25.00	\$25.00

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Name as it appears on card: _____
(please print)

Signature: _____

Always mention that you are with AAZK. All reservations are on a first-come/first-served basis. Hotel tax is 13% as well as \$3.00 occupancy tax. Conference rates are available from 25 August - 4 September 2005. Come early, stay late.

2005 AAZK National Conference
New Orleans, Louisiana
August 28-September 1, 2005



Conference Registration
(Please type or print clearly)

Name _____ Phone _____
Address _____
City _____ State/Province _____ Zip _____
Institution _____
Position/Title _____
Email address _____
Presenting a Paper/Poster/Workshop? _____ Bringing an auction item? _____
Vegetarian? _____

REGISTRATION FEES*	REGISTRATION DEADLINE IS 29 JULY2005
AAZK Member	\$150 (US currency) _____
AAZK Spouse	\$150 _____
Non-member	\$200 _____

DAILY RATES	
Sun 28 Aug (Ice Breaker)	\$ 25 _____
Mon 29 Aug(Papers, Breaks)	\$ 35 _____
Tues 30 Aug(Papers, Breaks)	\$ 35 _____
Wed 31 Aug(ZooDay, lunch, auction)	\$ 35 _____
Thurs 1 Sept(Papers, breaks, awards lunch)	\$ 40 _____
Thurs 1 Sept(Banquet)	\$ 50 _____
T-shirt M _____ L _____ XL _____ XXL _____	\$ 10 _____
(T-shirts \$15 at conference)	
LATE FEE applies to week, daily or trip, _____ per person	\$ 25 _____
TOTAL FEE ENCLOSED	\$ _____

Check enclosed _____ Please make checks/money orders payable to: New Orleans AAZK 2005.

Please charge to: MasterCard _____ AmEx _____ Discover _____ Visa _____

Card Number _____ Exp. _____

Name as it appears on card _____

Signature _____

Registration fee **DOES NOT** include the cost of Conference Proceedings. **No refunds after 12 August 2005.** Send this form and all fees to: AAZK Conference Registration, c/o Cyndi Ratliff, Audubon Zoo, P.O. Box 4327, New Orleans, LA 70178.

Conference Notes and Updates

SPONSORS

The conference is a very costly production and we would appreciate any AAZK Chapter or group that would be willing to sponsor an event such as a break or hospitality night. Or, if you would like to make a donation to help cover expenses, it would be greatly appreciated. For more information, contact Gretchen Jeff (504) 212-5386 or hoofstock@auduboninstitute.org<

EXHIBITOR'S TABLES

There is space in the Exhibitor's Hall for Chapters or groups interested in selling or displaying their products or causes. Cost per table:

\$50.00 for non-profit groups such as AAZK Chapters or TAGS

\$100.00 for profit groups such as wildlife artists, suppliers, etc.

Please contact Margie Parr at (504) 212-5373 or Losa Laroway at laraway@auduboninstitute.org<

PRE-CONFERENCE TRIP

The destinations for 27-28 August are the Jackson Zoo in Jackson, MS, then on to the Hattiesburg Zoo, Hattiesburg, MS. This trip is limited to 20 people. For more information contact Michelle Muniz at mmuniz@auduboninstitute.org<

POST-CONFERENCE TRIP

On 2 September, the destination is the Baton Rouge Zoo. Cost will be determined at a later date.

A second post-conference trip will be offered to Belize from 2-6 September. For more information on the Belize trip, go to the AAZK website at www.aazk.org and look under the Reminder Board on the right on the home page. Or contact Michelle Muniz at mmuniz@auduboninstitute.org<

CHAPTER CHALLENGE

The New Orleans Chapter of AAZK, hosts of the 2005 National Conference, will continue the Chapter Challenge established by the Cleveland Conference Committee. In order to keep delegates' costs to a minimum while ensuring the best possible conference, we are encouraging all AAZK Chapters to donate. Any Chapter donating \$250.00 or more will be entered into a drawing. The winning AAZK Chapter will receive one full registration and one double-occupancy room for five nights at the Sheraton New Orleans Hotel (28 August - 1 September). AAZK Chapters should look for a letter detailing all information soon.

AUCTION ITEMS

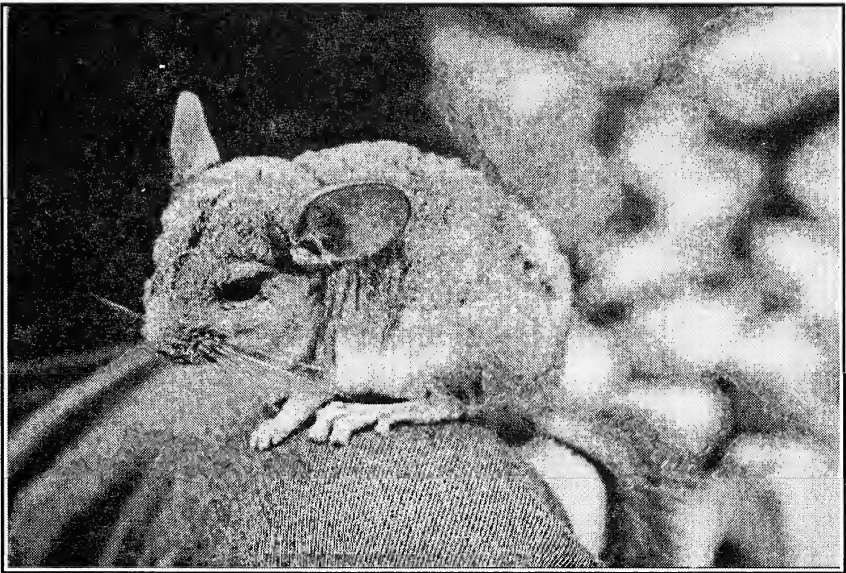
If you are donating an item for the auction, it would be great if you could send it early to: Audubon Zoo, c/o AAZK, 6500 Magazine Street, New Orleans, LA 70118.

Passive management techniques have apparently not resulted in increased chinchilla populations. Successful conservation programs must utilize active management techniques in order to encourage increases in recruitment.

Fragmented habitat leaves gaps which prevent dispersal and expansion of chinchillas and colonies. Intra-colony gene flow must be possible in order for the species to survive. This exchange of genetic material is more likely to occur in areas where the species does not have to cross unprotected or hostile barriers in order to reach potential mates. Practices of revegetation can reduce barriers to genetic flow encouraging recruitment eventually resulting in higher populations. Actively creating habitat aids in conservation of this species by reducing competition and barriers while increasing available resources.

Clearing land for hunting, mining and farming has resulted in habitat fragmentation as well as degradation. Practices of revegetation should try to: close gaps in distributions, increase habitat and reduce competition. Revegetation should include species that chinchillas depend upon. These should be planted to complement and expand colonies and their interconnections or corridors.

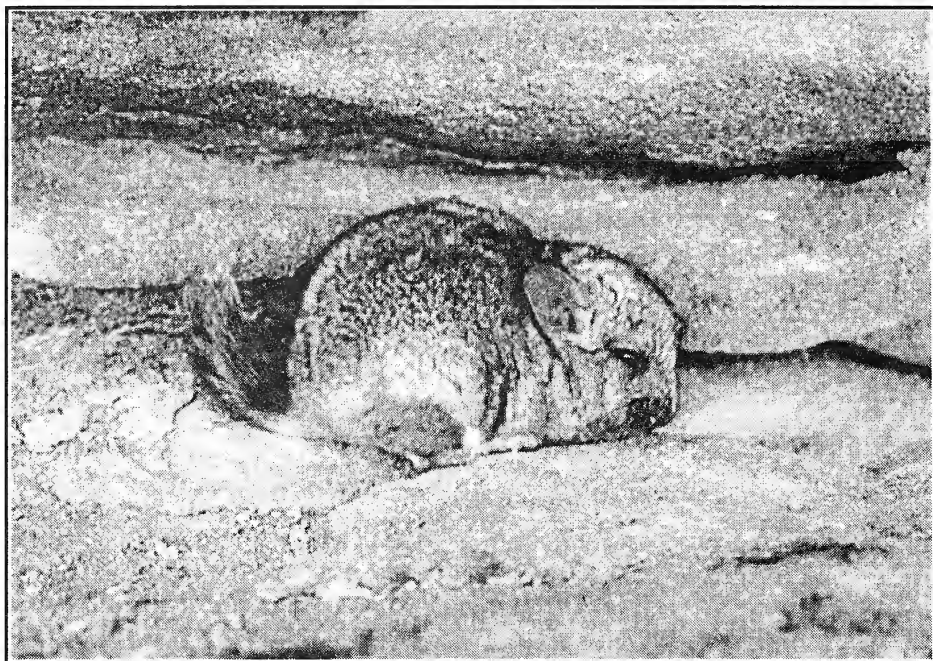
Preservation and expansion of protected lands must continue in order to facilitate conservation efforts. Special ecological areas need protection from human disturbances if endangered animals are going to survive. Expansion of protected habitat must be planned, evaluated and carried out on an ongoing basis.



Chinchilla de Cola Larga, Long-Tailed Chinchilla (*Chinchilla lanigera*)

Save the Wild Chinchillas, Inc. is a not-for-profit organization formed to aid in conservation of wild chinchillas. Its goal is to ensure that these endangered animals do not become extinct. In order to meet this goal we have three objectives: educate people of all ages, collect funds to buy/protect land and create preserves, and promote studies. In order to facilitate conservation including active management and ecosystem restoration, Save the Wild Chinchillas is working with the Chilean Park Service and Chilean schools to educate people closest to the wild colonies on how to help chinchillas and their habitat. In the summer of 1997, Save the Wild Chinchillas volunteers visited schools in Illapel, Chile to teach the children about chinchillas. Many of the children had never heard of a chinchilla. We sent each child home with an ecologically-sound wild chinchilla story. In November, donations to the organization allowed for more educational materials to be sent to the Chilean schools. In July 1998, "Salve Las Chinchilla" pencils were sent to the local people as a constant reminder of the species. Now that local people know of the animal, STWC is prepared to go to Chile and pay local land holders to conserve the animals. This is the beginning of a community-

based chinchilla sanctuary. Everyday members from around the world use educational materials available from the organization and its web site to teach others about endangered chinchillas and their conservation.



Chinchilla de Cola Corta, Short-Tailed Chinchilla (*Chinchilla brevicaudata*)

The Tragedy of the Commons (Hardin 1968) is an often heard phrase when relating to wildlife habit and conservation with the “commons” being any resource *used* as though it belongs to all. This phrase fits twofold into the status and conservation of the chinchilla. Its use as a resource ultimately brought about its tumble towards extinction but oddly, the domestic chinchilla’s current commonality may be causing their wild counterparts not to be viewed as a species in critical need of conservation measures.

C. brevicaudata is noted to be housed in 12 North American institutions with a population of 12.12.2. *C. lanigera* which is listed as Vulnerable (IUCN?) in the wild is housed in 95 North American institutions with a population of 118.109.28. Of the 282 individuals listed here, we believe more than 75% are housed or used as educational animals within the zoological community. The species’ wild counterparts have a story to tell, but are we getting the message out there and what are we currently doing to keep the remaining wild populations from diminishing any further?

Direct and local conservation education programs are an ongoing effort with education being conducted by both Save the Wild Chinchillas and CONAF. The Chilean Parks Service can help the people of the region understand how better to utilize and protect their habitat and natural resources. A concerted effort from international partners and focus on fauna and flora surveys in the region are needed as well as active management and protection of all colonies on both public and private lands. This region may offer an excellent opportunity for field research and conservation education efforts.

Given the large population of captive animals in North American institutions, and the literally millions of animals internationally in the domestic trade, it would be a natural connection to develop conservation efforts and attempt to focus funding for species that are common in zoological education and outreach programs that are well known by a large percentage of our visitors.

For more information on how to become involved with conservation and education efforts for chinchillas in the wild, you may contact either of the authors directly.

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Contact Information:

Amy Deane,
Save the Wild Chinchillas, Inc., Casilla 302,
Illapel, IV Region, Chile <http://wildchinchillas.org/>
amy_deane@yahoo.com

Pete Riger, AZA Rodent TAG,
Houston Zoo, 1513 N. MacGregor
Houston, TX 77030
priger@houstonzoo.org

All photos courtesy of: Jamie E. Jiménez, Ph.D., Laboratorio de Ecologica, Universidad de Los Lagos, Casilla 911, Osoro, CHILE.

"Grace Under Pressure" is a limited edition print. For every print sold, artist Ros Hill will donate 20% of the sale price to -

Bowling for Rhinos

To see the print in color, go to Ros Hill's website at:

<http://www.hillustrations.com>



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GRACE UNDER PRESSURE

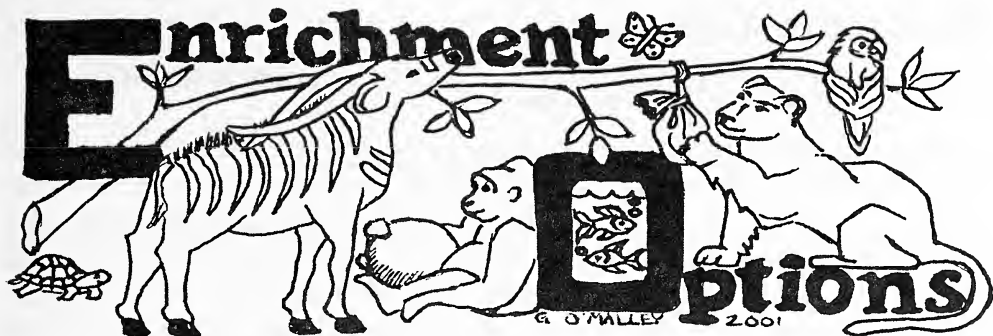
Block These Dates ! 7-11 May 2006

The Australasian Society of Zoo Keeping (ASZK) wishes to invite you to the **2nd International Congress on Zookeeping (ICZ)** to be held on the **Gold Coast, Queensland, Australia.**

Hosted by ASZK in conjunction with the following Zoo Keeper Associations: ABWAK, (Britain), AAZK, (United States), AICAS, (Spain), AFSA, (France), BdZ, (Germany) and De Harpij, (The Netherlands). Further information can be obtained by visiting <http://www.iczoo.org> or to receive regular updates subscribe to ICZ_News-subscribe@yahoogroups.com or write to ICZ Conference Convenor c/- ASZK PO Box 248, Healesville Vic, AUSTRALIA 3777.

Look forward to seeing you there!!





*EO Editors - Dawn Neptune, Utah's Hogle Zoo
and Rachel Cantrell, Disney's Animal Kingdom*

The Enrichment Game

By

*Peggy Hoppe and Dan Self
Enrichment Committee Chairs, Keepers
Birmingham Zoo, Birmingham, AL*

The Birmingham Zoo developed a new enrichment program based on the SPIDER system used at Disney's Animal Kingdom (see www.animalenrichment.org for explanation of SPIDER system). In order to assist in teaching all employees the new paperwork and system, the Birmingham Zoo developed an enrichment class for employees. The class at first contained three sessions about using the SPIDER system and the new paperwork. It was decided that the classes needed to be a little more interactive to try to help employees get in the mind set of the new enrichment program. As a result, The Enrichment Game was developed on the same theories of The Training Game. Below are the specifics of The Enrichment Game. All aspects can be changed in order to better achieve a specific enrichment goal.

The Enrichment Game

The zoo recently acquired 1.0 Humans (*Homo sapiens*) weighing 165 lbs. You are keepers and are experts in the behavior and captive management of Humans. You have been asked to develop an enrichment program that meets the captive needs of the Human. This male is currently housed in a 15' X 20' X 20' concrete holding cage with chain link fence and a feeding trough. The holding cage is painted white, has a single drain in the back, and a water bowl. The feeding schedule for this animal is two pounds of fruits and vegetables served raw and whole along with two pounds of cooked meats of various kinds served whole. All food is fed out at 0700 when keepers arrive in the morning. The exhibit is currently under construction for this animal, but in the mean time he is housed in this cage and moved to a shift cage to be cleaned, and then returned to his cage when cleaning is completed.

The typical answers that we receive first are to get a television and a Playstation® for the Human to play with. Some of the answers that should be given first are a bed to sleep in, a separate toilet to use as a restroom, a mate or roommate, a place to bathe, food given three times a day instead of once in the morning, etc. The purpose of the exercise is to help keepers understand that not all enrichment is new and novel toys. There are things that provide for some of the basic behavioral needs of an animal that can be provided in enrichment. This activity was a perfect introduction to the questionnaire and other paperwork used in our enrichment program.

Additional food for thought

Reprinted with permission from ZooNews Digest

ENRICHMENT - "the act of making rich; that which enriches"

I've been thinking about this definition for some time. It is clear to me that within the 'zoo' sense that any enrichment" offered/presented more than once or twice a week ceases to become what it was intended to be. It becomes "routine". That is - 'any regular course of action or procedure adhered to by order or by force of habit'. Routine, of course, is important, and I am not knocking it, but it should not be dressed up in or promoted in the "Enrichment" guise. A dog which is taken for a walk every day and chases a ball clearly enjoys and gains both mental and physical benefits from the exercise. But, as it is the same everyday, it is routine and not enrichment. A dog that is confined to a pen nine days in ten would be enriched by a walk (even without the ball) on the tenth day even though it may be part of a routine. Static "Enrichment" equipment within the zoo simply becomes part of the cage furniture, ornamentation or decoration, nonetheless important, but dead as "Enrichment" per se. Identical, daily methods of feeding enrichment simply become 'feeding' no matter how well-staged or managed it may be. Enrichment needs work, imagination, dedication and time. It is heartening to see this being recognized by forward-thinking zoos that have increased staffing levels to take this important 'pillar' of zoo management on board. More need to follow suit. "Enrichment" is for our charges, the animals, pure and simple.....not the public, not the keepers, not the management, and not to show anybody how clever we are. I believe curators, keepers and zoo inspectors along with others should make a distinction between enrichment and routine. Give credits for both, but not one at the expense of the other.

Peter Dickinson, Editor *ZooNews Digest*

email - Peter@elvinhow.prestel.co.uk

Leather Elves Enrichment Device Contest



Attention all AAZK members, it's time to put your thinking caps on. The AAZK Enrichment Committee and The Leather Elves are happy to be sponsoring the 3rd Annual Enrichment Device Design Contest. If you've got an idea for a device that's just taking up space in your brain, or if you have built something that has worked particularly well with your animals, share it with the world.

Entries will be judged on safety, innovation and affordability. Keep in mind The Leather Elves do not weld, and they do not use materials such as sheet metal. The winning device will be named after you, built by The Leather Elves, and a portion of the proceeds for each sale will go to AAZK. Please send a written description and a diagram or drawing of your idea (don't worry - you do not need to be a professional artist!!) to:

Robin Shewokis/ The Leather Elves
43 Mutton Lane
Weymouth, MA 02189

Entries must be received by **30 April 30 2005**. The winning design will be announced at the AAZK National Conference in New Orleans, LA and highlighted in a subsequent issue of the *Animal Keepers' Forum*.

Enrichment Excellence- Let Someone Shine!

Have you been impressed with an initiative that an individual or group has developed to better enrich their animals? Has an individual or group **you** know, developed an activity for a species in their care that has brought forth breathtaking natural behavior? Do you know an individual or group that has spearheaded a dynamic program helping their department move forward with sustainable, accountable, zoo-wide enrichment? Has this individual or group inspired you through their dedication to enrichment for captive wildlife? If so, you can let them and their colleagues know just how much their hard work is appreciated through the Enrichment Excellence Award. Information and criteria for nominations appeared in the February 2005 issue of *AKF*, but start thinking now of that special person or group who you think may be an Enrichment Hero! **Deadline for nominations is 1 June 2005.** Award recipients and their work will be highlighted in an issue of the *Animal Keepers' Forum*.

(Ideas appearing in this column have not necessarily been tested by the editors for safety considerations. Always think ahead and use good judgement when trying new ideas. You are invited to submit materials for the Enrichment Options Column. This might include recipes, toys, puzzle feeders, olfactory enrichment ideas, etc. Drawings and photos of enrichment are encouraged. Send to: AKF/Enrichment, 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054. Eds.)

One day an ape escaped from the Zoo. They searched for him everywhere, in every borough. They announced his disappearance on the radio and television as well as the newspapers. But, no one reported seeing the ape. At last, he was discovered in the Library. Officials of the zoo as well as the keepers were summoned to the library. They found the ape sitting at a desk in the reading room with two books spread out in front of him. The ape was reading with great concentration. One book was the Bible; the other written by Darwin. The zoo keepers asked the ape what he was doing. The ape replied, "I'm trying to figure out whether I am my brother's keeper or whether I am my keeper's brother." --from *ZooNews Digest*

Animal Shipping Crate for Sale

Panthera Research is pleased to offer for sale the last of their custom animal transport crates in new condition. This design is suitable for a wide variety of small hoofed animals, felids, primates, and birds (48" l x 27" w x 36" h). Profiled in the *AAZK Animal Keepers' Forum* article by W. K. Baker, "Advancements in Shipping Crate Design, Fabrication, and Application" (June 2002). Price: \$600 + shipping. For more information contact puma_cat@hotmail.com and use "crate" on the subject line.

Chapter News Notes

Rocky Mountain AAZK Chapter

The Rocky Mountain AAZK Chapter had a great 2004! The Chapter was able to raise approximately \$20,000 for the year through our various fundraisers. The funds were donated to 13 different conservation efforts as well as helping many members attend conferences and workshops.



In August, we held our 4th Annual Comedy Night, which ended as a great success. The night included a 100-item silent auction, an eight-item live auction, beer, wine, and appetizers. With the comedy provided by this year's comedian Bryan Kellan, patrons contributed a total of \$12,000. The money was divided evenly to the Rewilding Institute (a park for Jaguars), the Gilman International Conservation Institute (an Okapi wildlife reserve), the Bushmeat Organization in Cameroon, and the Snow Leopard Trust. Thank you so much to everyone who helped make these events such a success! We look forward to an equally fantastic 2005!

*--Beth Carroll-Vasquez, Chapter President
Rocky Mountain AAZK, Denver, CO*

Greater Philadelphia Chapter AAZK

With our newly expanded membership base and newly adapted name, the Greater Philadelphia Chapter finished out 2004 with both satisfaction and accomplishment. At our final meeting of the year, we held our annual elections.

The new officers for 2005 are:

President.....Dawn Madzarac
Vice-president.....Catherine Vine
Secretary.....Amy Ivins
Treasurer.....Linda Cairnes
Liaison.....Kristi Blundetto

The past year went quickly, but not without many memorable endeavors, including our annual participation in a local food drive, our highest-attended Bowling For Rhinos to date, and marvelous trips organized by our social committee. Thanks to all of the 2004 officers and committee chairs for helping to make this past year great. Our Chapter had an exhilarating year in 2004, and we can't wait to see all that unfolds in 2005.

*---Kristi Blundetto, Liaison
Greater Philadelphia Chapter*



A M E R I C A N
A S S O C I A T I O N
O F Z O O K E E P E R S
GREATER PHILADELPHIA CHAPTER

Lincoln Park AAZK Chapter

Lincoln Park AAZK Chapter officers for 2005 are:

President.....Anthony Nielsen
Vice President.....Leslie Lurz
Secretary.....Diana Villafuerte
Treasurer.....Cindy Swisher
2006 AAZK Conference Chairperson/Kris Fraas

We are excited (and a little scared) and looking forward to our 2006 National AAZK Conference (Sept. 15-20) and are raising money in numerous ways.

Among some of the fundraisers are selling animal paw prints and one of a kind painted ostrich eggs in the zoo gift shop, Christmas gift wrapping at

Barnes and Noble and Borders book stores, bake sales, and selling T-shirts with our new excellent chapter logo. If anyone has any great ideas or advice to share feel free to send them to zooboyanthony@aol.com

We would like to thank the other AAZK Chapters for their help and advice in putting on this conference and we hope to see you all there.

---Mike Skidmore, Chapter Liaison



Orange County AAZK Chapter

After a bumpy end to 2004, the Orange County Chapter of AAZK has hit the new year with full force. I would like to give a warm welcome to our new members. It's always exciting to have new blood with fresh ideas and lots of enthusiasm. We are already planning our annual rummage sale for May, the annual Monkey Chow for July, and we have decided to try our hands at a Bowling for Rhinos event in August.

Congratulation to the following members who were elected as officers for 2005:

President.....Ashley Hermans
Vice President.....Rayna Williams
Secretary.....Elta Chapman
Treasurer.....Jenny Walker
Chapter Liaison.....Vanessa Perrigoue

And I would like to give a big thanks to all the members for their hard work. Our Chapter continues to grow, and we hope this year will be our best yet!

—Vanessa Perrigoue, Chapter Liaison

CHAPTER LOGOS

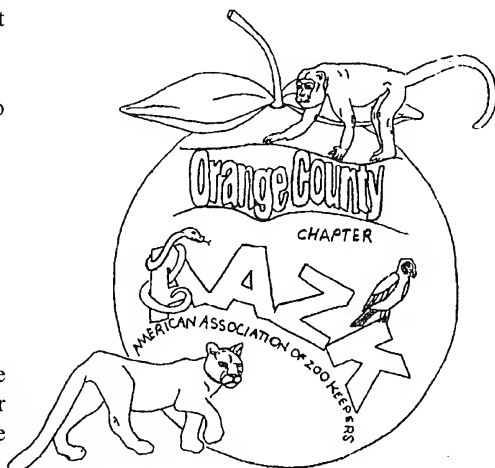
Does your Chapter have a new logo? Please keep us up-to-date if you change your Chapter logo. Also, new Chapters are encouraged to send in a copy of their logo as soon as they adopt one. Logos may also be sent as graphic file attachments (tiff or jpeg) to the email address listed below.

We will be producing another Chapter Logo Registry in 2005, so make certain the logo in our file is your most current one. When sending in logos, please include name of the artist/designer, date logo was adopted, and what, if any, significance is in the design - animals represented, etc.

What's your AAZK Chapter been up to? Let us know about your successful fundraisers, guest speakers, conservation projects, new officers, new logos, etc. We want to hear from you!

**Send your Chapter News to the
AKF Editor at:**

akfeditor@zk.kscoxmail.com



Monitoring Bongo Infant Growth by Weight – A new reference guide

*By Kimberly Moses, Zookeeper
and*

*Pearl Z. Yusuf, Asst. Curator
Hooves and Horns Section, Franklin Park Zoo
Boston, MA 02121*

On 12 July 2003 keepers at the Franklin Park Zoo in Boston were privileged to witness a rare event. Jioni, a 10-year-old female Eastern Bongo (*Tragelaphus eurycerus isaaci*) gave birth in the middle of the day. The off-exhibit holding yard provided an easily viewed birth and we were lucky enough to capture most of the birth on videotape. While bongo births are not rare, one expects parturition usually under less conspicuous circumstances.

Zoo New England has held bongos for over 30 years. There have been nine on-site births in that time. As is standard procedure, the offspring was given a vet exam after 24 hours, during which she was vaccinated, weighed, ear-tagged, etc. In another two weeks, booster vaccines were given. Other significant details are given in **Chart 1**.

The unexpected and sudden death of the dam when the calf was 100 days old presented us with a challenge. The calf did not lack companionship as she had previously been successfully introduced to another adult female. Also, she had been seen grazing, eating alfalfa and nibbling at the grain. Still it was difficult to say how independent she was, given that she had nursed regularly. A decision was made to try supplemental feeding, first using a bovine milk replacer¹, mixed 1:1 with water. This was unsuccessful. Not only did the calf not take to the formula, she actively avoided it despite our efforts to conceal it in treats. Next we tried adding Calf manna² to her grain. While she didn't seem to favor it, she at least did not avoid it.

Because we couldn't accurately monitor her intake (without removing her from the other adult female) we decided to monitor her weight. Researching the subject of infant development, we discovered there were no consistent weights in references explored. The weighing set up was fairly simple. Using a platform scale³, the calf was easily coaxed using her grain and/or novel food treats. To ensure she stood properly lined up on the scale, a simple board was propped beside the scale. This procedure became routine for her and we were able to obtain weights weekly. (**See Figures 1 and 2 – Weighing set up**) Once confident that she was gaining weight well, it was decided to continue to weigh her to monitor development. As she grew, we switched to using a Gagetek piston scale⁴ with a 4' X 6' (1.22m X 1.83m) wooden platform, as is done with our larger hoof stock.

We are convinced and pleased that the calf continues to be healthy. We present this information (in chart and graph form) for future reference. (**See chart 2, graph 1**)

¹ Milk replacer by Dairy Focus™ Distributed by Cargill Animal Nutrition, Cargill Inc. Minneapolis, MN

² Manna Pro/E Corporation; Distributed by 707 Spirit St. Louis, MO.

³ Cardinal Detecto CN20 Digital Weight Indicating Instrument

⁴ Gagetek 390-DC HCP Portable High-Capacity Scale

Chart 1
Neonate development and procedures

Event	Age	Comments
12 July 2003 Born	(Labor took approx. 1 hour)	On video; no complications
Standing	16 min	
Neonate exam	2d	Blood draw, microchip, PE
2 nd exam	5d	Ear tagged
Started to leave dam's side	13d	
Seen eating alfalfa	15d	
Seen eating grain	16d	
Introduced to 2 nd adult female	45d	
Caught up for tetanus	61d	
Rabies and tetanus	94d	Could not be hand-grabbed – pressed to floor
Death of dam	100d	

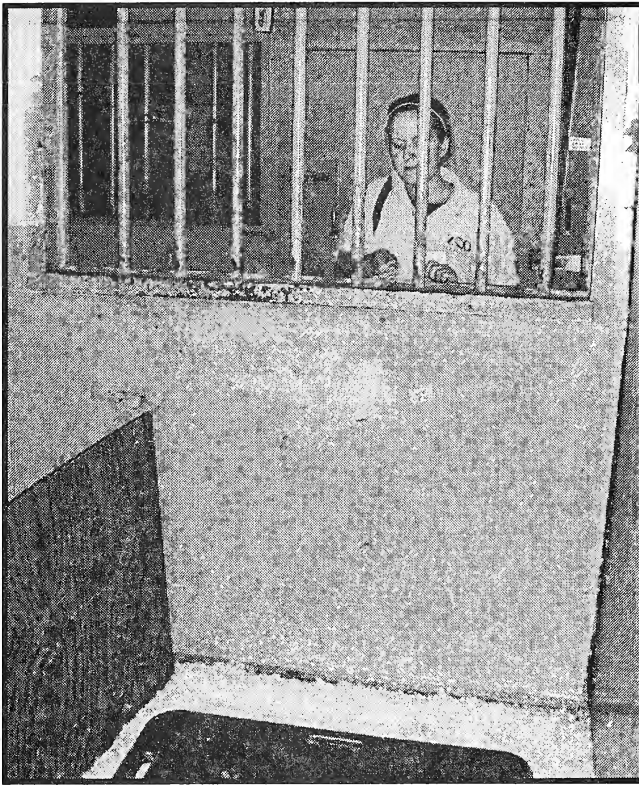


Fig. 1 Keeper Kim Moses stands outside the stall containing the scale where the young bongo was weighed. *(Photo by Harriet Good)*

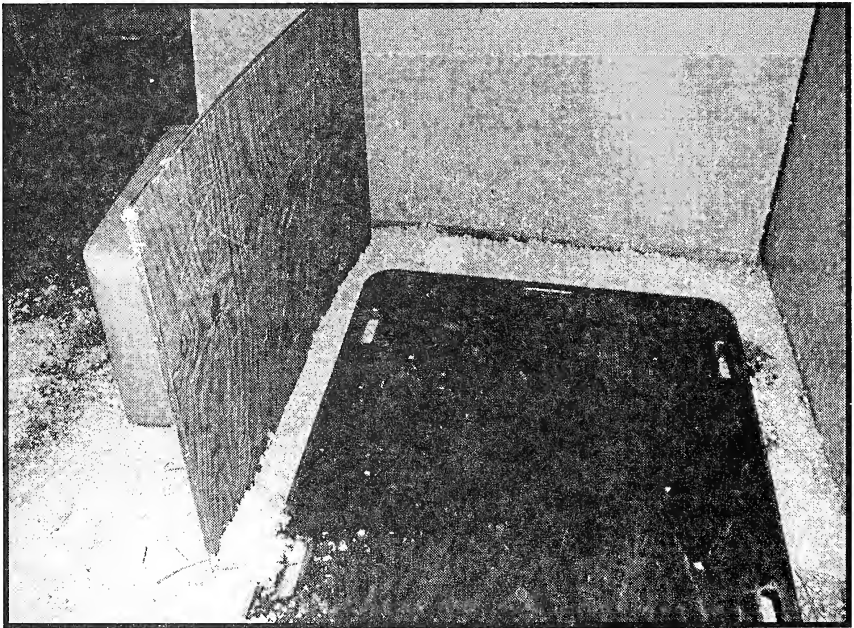


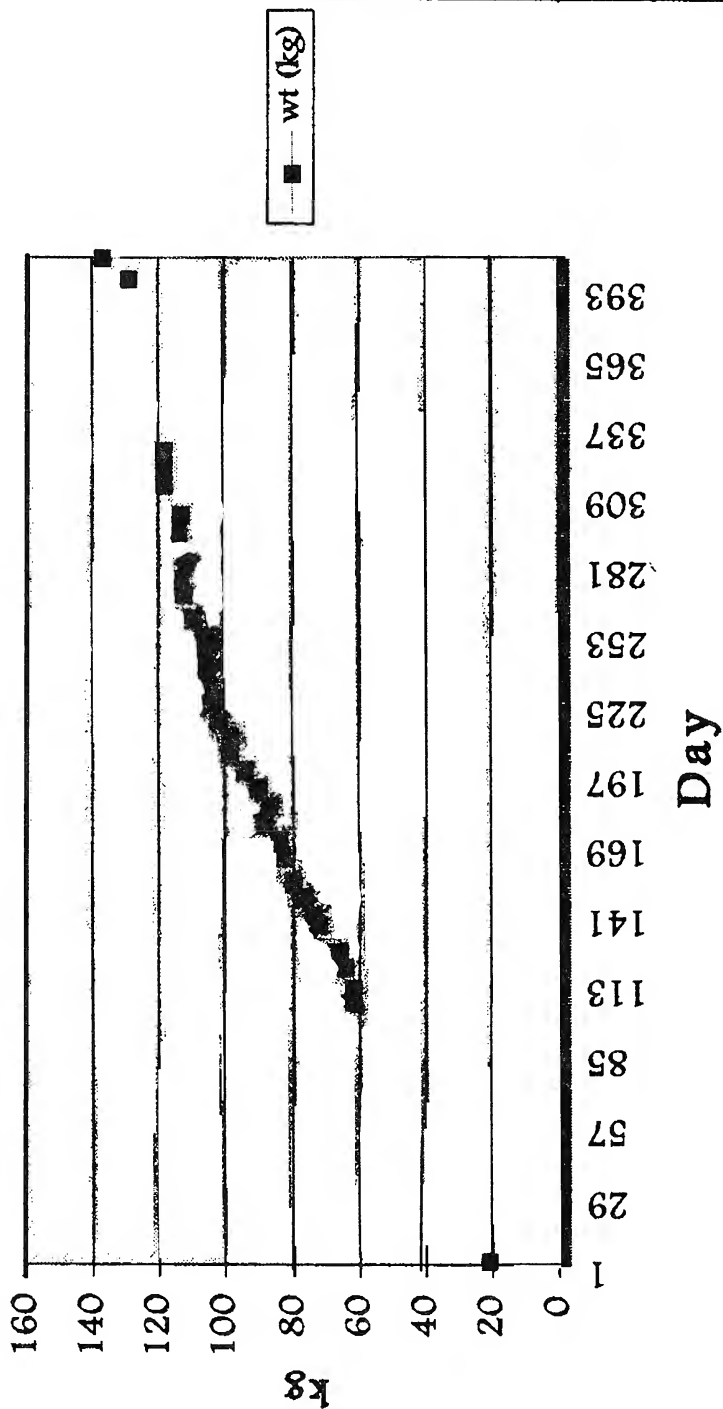
Fig. 2 Shows the weighing set-up using a platform scale and a simple board to keep the young bongo properly positioned. *(Photo by Kim Moses)*

Chart 2
Bongo weights

Days Old	Wt (kg)	Days Old	Wt (kg)	Days Old	Wt (kg)
2	20.9	170	84.2	259	109.5
106	61.5	177	88.2	2691	112.7
111	61.7	184	86.3	275	113.3
119	63.6	191	89.6	282	111.4
126	65.9	198	94.4	293	114.5
137	71.8	226	102.9	300	113.6
140	73.5	231	104.8	312	118.2
147	75.8	239	105.4	319	118.6
154	79.5	245	106.5	326	118.2
163	83.3	252	106.8	395	128.6
				403	136.4

0.1 Bongo (Annakiya) Wt. Graph

Graph 1



Legislative/Conservation Update

Compiled by Georgann Johnston
Legislative Advisor
Sacramento, CA



USFWS Calls for Proposals from Tribes for Grants to Conserve Fish and Wildlife on Tribal Lands

The U.S. Fish and Wildlife Service recently issued a request for proposals from federally-recognized Tribes to conserve and recover endangered, threatened and at-risk species and other wildlife on Tribal lands under the Tribal Landowner Incentive (TLIP) and Tribal Wildlife Grant (TWG) programs. The grant programs are designed to support efforts to conserve and restore the habitat of threatened, endangered and at-risk species on tribal lands. Grants in the two programs are awarded through a competitive process. TWG, in fiscal year 2005, has \$5,917,000 available for grants that will benefit wildlife and its habitat, including species that are not hunted or fished. Although matching funds will be considered as an indicator of Tribal commitment to a project, they are not required for these grants. The maximum award under this program is \$250,000. In fiscal year 2005, TLIP has \$2,126,000 available for federally-recognized Indian Tribes to address protection, restoration and management of habitat to benefit species at risk, including federally-listed endangered or threatened species, as well as proposed or candidate species. Up to 75% of the costs associated with each project funded under this program may be covered by Federal funds. The maximum award under this program is \$150,000.

Indian Tribes have a controlling interest in more than 52 million acres of Tribal trust lands with an additional 40 million acres held by Alaskan Native Corporations. Much of this land is relatively undisturbed, providing a significant amount of rare and important fish and wildlife habitat. Previously awarded grants now support projects such as comprehensive surveys of plant and vertebrate fish and wildlife on reservation lands to establish databases, habitat and fish restoration, and development of new resource management techniques. Some of the at-risk species benefitting from these projects include lake sturgeon, sage grouse, antelope, pygmy rabbits, and eastern cougar. *Source: USFWS Press Release 3 February 2005*

Terminology for Brain Structures in Birds Undergoes Revision

Duke University neurobiologist Edwin Jarvis and 28 other neuroscientists have proposed sweeping changes to the terminology associated with the brain structures of birds—a century-old nomenclature the researchers consider outdated and irrelevant to birds' true brainpower. The international research group concludes in a recent paper published in *Nature Reviews Neuroscience* that significant discoveries made over time reveal that birds are much closer to mammals in cognitive ability, and therefore, a new consistency in language will enhance studies of both. The scientists describe a wide range of studies demonstrating that the so-called "primitive" regions of avian brains are actually sophisticated processing regions homologous to those in mammals. Those studies, which included tracing of neural pathways and behavior, showed that such avian brain regions carry out sensory processing, motor control and sensorimotor learning just as the mammalian neocortex. The scientists add that molecular studies reveal the avian and mammalian brain regions are comparable in their genetic and biochemical machinery.

In the same article, members of the Avian Brain Nomenclature Consortium reason that the old view of evolution in birds is no longer valid. Citing technical revisions to the nomenclature that were published in May 2004, consortium members assert in the new article that the old terminology - which implied that the avian brain was more primitive than the mammalian brain - has hindered scientific understanding.

"We believe that names have a powerful influence on the experiments we do and the way in which we think," wrote the authors of the new report. "Our current understanding of the avian brain requires a new terminology that better reflects these functions and the homologies between avian and mammalian brains."

"The impact of this work will go far beyond simple comparative anatomy," Jarvis said. "There is strong interest across neuroscience in using birds as models for learning and development, and migratory and social behavior."

The revision of the nomenclature for avian brains would replace a system developed in the 19th century by Ludwig Edinger, considered the father of comparative neuroanatomy. Edinger's system was based on a then-common practice of combining Darwin's recent theory of evolution and Aristotle's old concept that there exists a natural "scale" of creatures from lowest to highest. The prevailing views became that evolution was progressive from organisms with "lower" intelligence to those with "higher" intelligence and that evolution had a purpose—the generation of humans.

"We knew that we were doing something that may have an impact, not only on the immediate conduct of research in neuroscience, but on neuroscience for the next hundred years," said Jarvis. "And this nomenclature will help people understand that evolution has created more than one way to generate complex behavior—the mammal way and the bird way. And they're comparable to one another. In fact, some birds have evolved cognitive abilities that are far more complex than in many mammals." *Source: National Science Foundation Press Release 4 February 2005*

Senate to Consider Bill Banning Canned Hunts in U.S.

Senator Frank Lautenberg (D-NJ) recently introduced legislation that would help combat the unsporting and inhumane practice of "canned hunts." Senate Bill S. 304 would prohibit the interstate commerce of exotic animals that are destined to be killed for trophies at canned hunting facilities. Although advertised under a variety of names - most frequently "hunting preserves," "game ranches," or "shooting preserves" - canned hunts violate the hunting community's standard of "fair chase" by confining animals to cages or fenced enclosures. The types of exotic animals killed can include zebras, Corsican rams, blackbuck antelope, and water buffalo. One animal welfare organization estimates that there are more than 1,000 hunting ranches scattered across more than 25 states, offering "no kill, no pay" opportunities to kill confined exotic animals. The animals are bred in captivity, purchased from animal dealers, or, in some cases, retired from zoos and circuses, so they do not fear contact with humans and make easy targets.

"Canned hunts are a disgrace, and it is time for the federal government to crack down on the practice of moving exotic animals in interstate commerce for the purpose of being shot for a trophy in a confined setting," said Wayne Pacelle, president and CEO of The HSUS. "Here is an issue that rank-and-file hunters and animal activists can agree is worthy of an aggressive public policy response."

Exotic animals confined in high-density clusters at canned hunts also contract diseases more readily than free-roaming, widely dispersed species, according to The HSUS. Exotics interact with native species through fences, contributing to the spread of Chronic Wasting Disease and other illnesses that jeopardize the health of deer, elk and other native species. *Source: The HSUS Press Release 8 February 2005*

Oldest Captive Lowland Gorilla Turns 49

The Erie Zoo's most famous resident turned 49 in February. The 1.0 lowland gorilla Rudy is believed to be the oldest captive lowland gorilla in the world, according to the International Species Information System (ISIS).

He was captured in Africa as a baby and arrived at the Erie Zoo in Pennsylvania in 1987, after having lived at zoos in St. Louis, Los Angeles and Cleveland. Rudy loves produce, and supplements his diet each day with Geritol® and Herbalife®, along with glucosamine tablets, to fight joint pain. Officials say Rudy is in good health, but he is showing his age. His hair is grayer than it used to be and he sleeps a lot more. *Source: Associated Press*

Polar Bears and Seals May Become Extinct Within 20 Years

Many Arctic animals, including polar bears and some seal species, could be extinct within 20 years because of the effects of global warming, reports a major conservation group. Traditional ways of life for many indigenous people in the Arctic will also become unsustainable unless the world "takes drastic action to reduce climate change," according to the World Wide Fund for Nature (WWF). "If we don't act immediately the Arctic will soon become unrecognisable," said Tonje Folkestad, a WWF climate change expert. "Polar bears will be consigned to history, something that our grandchildren can only read about in books." By 2026, the earth could be an average 2°C warmer than it was in 1750, according to the group's research. *Source: The Star Online 2/6/05*

Congo Police, Army Accused of Elephant Poaching

Congo's police and fractious army have been accused of involvement in rampant elephant poaching

that threatens to wipe them out from a world heritage site in the east of the former Zaire, a new study has warned. The investigation by the Congolese Institute for Conservation of Nature estimates 17 tons of elephant ivory was smuggled out of the Okapi Wildlife Reserve (OWR) in the volatile Ituri district during the last six months of 2004 alone.

“Although a significant number of people are implicated in the trade, our investigations have identified just 12 people who played the role of main poachers ... they are all linked to the military and the national police,” said the report. “Unless this poaching is controlled immediately, the elephants in the OWR, which represent the last large population in the Congo, will be wiped out.” *Source: Reuters News Service 1-27-05*

Eastern Lowland Gorillas Seem to be Beating Odds in Congo

An isolated population of rare Grauer's gorillas (*Gorilla berengei graueri*), living among rebel armies and bands of poachers, has managed to survive in one of the most dangerous regions in Africa, and may even be increasing, according to a recent census by the Bronx Zoo-based Wildlife Conservation Society (WCS). WCS conservationists say that a band of park guards who have heroically defended the gorillas and their rainforest home in eastern Democratic Republic of Congo, have played a key role in safeguarding these endangered primates.

The census, led by WCS project director Innocent Liengola, counted 168 gorillas living in the mountain highlands of Kahuzi-Biega National Park. Most encouragingly, a number of the groups had infants. A census under difficult conditions in 2000 estimated 120 to 130 animals in the same area. Preliminary surveys from other regions in the park and outlying areas have also shown these rare large primates to continue to persist, despite some recent reports that the animals are nearing extinction. A 1996 WCS survey in Kahuzi-Biega in found a population of 245-270 Grauer's gorillas living in the same area of the park. Following this survey, the population was hit hard by the onset of Congo's long civil war, which swept through much of the country. Ongoing insecurity in the region has made Kahuzi-Biega extremely dangerous for conservation work. As recently as last May, field teams attempting to count gorillas had to flee the area due to rebel fighting. Five years ago a survey team of ten was killed by rebel fighters during attempts to demarcate the park border. For the park guards, the ability to negotiate with rebels and potential poachers have kept the gorillas largely safe.

The Grauer's gorilla (also known as the eastern lowland gorilla) is the least-studied of the four gorilla sub-species. More than three-quarters of the world's population is believed to be living in and around Kahuzi Biega National Park, though a total population estimate remains unknown. *Source: Wildlife Conservation Society*

African Treaty to Protect Forest

Leaders of seven African nations have signed a joint treaty to protect their continent's massive rainforest - second only to that found in the Amazon basin. The treaty aims to breathe new life into a conservation project set up five years ago, which has not progressed. There are 2.3 million sq km (890,000 sq miles) of tropical forests in Congo. Described as being one of the world's "two lungs", the African forests are shrinking at a rate of 8,000 sq kms per year, plagued by illegal logging, excessive poaching and ecological damage. The talks brought together heads of state and government and African and Western logging companies, with the aim of co-ordinating local and global efforts to preserve Africa's rainforests. The signatories are also expected to create a certification system for tropical wood, such as the one which already exists for diamonds, so that consumers in the West would be aware of the origin of the wood of furniture they buy. The aim is to protect more than 200 million hectares of forest which is spread over seven countries in central Africa. *Source: BBC News 2/5/05*

Kenya Pressured to Drop Planned Wildlife Swap

Wildlife activists have stepped up pressure on Kenya to drop controversial plans to send hundreds of wild animals to zoos in Thailand, appealing directly to President Mwai Kibaki to cancel the deal. The British-based Born Free Foundation said the plan to send more than 300 animals - including elephants, hippos, lions and rhinos - from 30 different species to Thailand "could undermine Kenya's credibility as a positive global force for animal welfare and conservation".

In a letter to the Kenyan Wildlife Service and the Ministry of Tourism, the Pan-African Sanctuaries Alliance (Pasa), which represents 16 primate refuges in 12 countries, said it was re-evaluating a decision to stage its 2005 management workshop in Kenya because of the plan. *Source: Independent Online 1/28/05*

Institutions wishing to advertise employment opportunities are asked to send pertinent data by the 10th of each month to: Opportunity Knocks/AKF, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054. Please include closing date for positions available, and when setting these dates keep in mind that because of bulk-mail, most readers do not receive their AKF until the middle of the month or later. There is no charge for this service and fax or e-mail listings of positions which become available close to deadline are accepted. Our Fax is (785) 273-1980; e-mail: akfeditor@zk.kscoxmail.com< Listing must be sent as MS Word attachment. To post a position on the AAZK website, have listing to email address above by the 25th of the month for posting on the first day of the following month. We are no longer located at the Topeka Zoo, so please note new address to avoid delays in processing.

The following two (2) positions are available at The Elephant Sanctuary, Hohenwald, TN. Please send resumés and references to: Scott Blais, The Elephant Sanctuary, P.O. Box 393, Hohenwald, TN 38462 or FAX to: 931-796-4810 or e-mail scott@elephants.com. Jobs will be posted until filled.

The Elephant Sanctuary, the nation's largest natural habitat refuge for elephants, is looking for two enthusiastic individual to join our team. Over the past 14 months we have expanded our facilities to 2700 acres of elephant habitat and increased our elephant population to twelve. We received Delhi; the first elephant confiscated by the USDA, completed a 300-acre African habitat and barn and acquired three female African elephants, created a TB quarantine facility and received two of the Hawthorn elephants, Lota and Misty. Plans for 2005 include the completion of fencing to enclose an additional 2200 acres of elephant habitat and the construction of two additional Asian barns capable of housing 40 elephants.

Lead Elephant Keeper - Responsibilities: The qualified applicant will be charged with supervising the maintenance of female African elephants in a multi-hundred acre habitat. Responsibilities include but are not limited to keeper training and supervision, behavioral data collection and record keeping, behavior conditioning; will be trained (in-house) to manage the elephants using the non-dominance technique of passive control. **Requirements:** Candidate must be physically fit and able to lift 65 lbs., possess a strong work ethic and have a progressive attitude toward captive elephant welfare. Candidate must be self-motivated and have the ability to work unassisted. Due to the job requirement the candidate must be mechanically inclined and able to work weekends. The starting pay range is between \$19,000-\$21,500 and benefits; six (6) months probationary period.

Elephant Keeper I - Responsibilities: The qualified applicant will be charged with maintaining female African and Asian elephants in two separate multi-hundred acre habitats. Responsibilities include but are not limited to cleaning, food preparation, record keeping, behavior conditioning, construction and facility maintenance. The chosen candidate will be trained (in-house) to manage the elephants using the non-dominance technique of passive control. **Requirements:** Candidate must be physically fit and able to lift 65 lbs., possess a strong work ethic and have a progressive attitude toward the welfare of captive elephants. Candidate must possess the ability to work unassisted and be self-motivated. Due to the job requirement the candidate must be mechanically inclined and able to work weekends. The starting pay range is between \$18,000-\$19,500 and benefits; six (6) months probationary period.

Elephant Handler - Smithsonian's National Zoo, Washington, DC
Applications can only be accepted during the posted opening dates from 10 February - 11 March 2005. The jobline - 202-287-3102. The job listings website - <http://www.sihr.si.edu/job.htm> Or: call or e-mail - Marie Galloway (Elephant Manager) 202-673-4743 gallowaym@si.edu Or - Tony Barthel (Curator) 202-673-4703 barthelt@si.edu Smithsonian's National Zoo is looking for handlers who are motivated and enthused about training elephants. **Requirements:** Applicants must have excellent interpersonal skills and be effective at becoming part of an established team. Both free and protected contact experience will be considered. This position will also require working with other animals as assigned, currently hippos, and capybaras. The elephant program includes three female Asian elephants handled in free contact (S.T.A.R.S.) and one (3-year-old) male Asian primarily handled in protected contact. National Zoo is planning to build a new breeding facility and to (slowly) develop a multi-generational related herd of elephants.

Curator— Kentucky Down Under, Horse Cave, KY
Applicants should submit a cover letter, resumé and three (3) letters of recommendation by mail to Judith Austin, Kentucky Down Under, PO BOX 189, HORSE CAVE, KY 42749. For more information about our organization visit www.kdu.com< Position available for an **Animal Curator** at Kentucky Down Under, a small private animal park focusing on Australian animal species and emphasizing a "hands on" interactive and educational experience for our visitors. **Position available until filled. Responsibilities:** Supervise all aspects of animal care for KDU's collection of over 70 species of birds, mammals and reptiles; work with consulting veterinarian and macropod specialists to optimize animal health and condition; assist in hiring, training and supervising KDU's Animal Crew of approximately 15 keepers; assist staff in developing interactive, thematic interpretation of park exhibits for our visitors; participate in outreach programs and promotional events. **Requirements:** The successful applicant will have completed a course of study in an animal related field and have professional experience in exotic animal husbandry. S/he must be self-motivated, possess outstanding people skills and be a proven team leader. The Curator's position requires good record keeping and organizational

skills and the ability to work a flexible schedule as well as a genuine regard and concern for animals. In addition, the Curator must present a professional personal appearance and have a valid driver's license with a clean driving record. A sense of humor wouldn't hurt either. For additional information, please contact Judy Austin, Director at judy@kdu.com or by telephone at 1 (800) 762-2869. Kentucky Down Under is an equal opportunity employer.

Great Ape Caregiver – Center for Great Apes, Wauchula, Florida

Please email your resume to resume@prime-apes.org Interested applicants may view our website at www.CenterForGreatApes.org The Center for Great Apes, a sanctuary for chimpanzees and orangutans located in rural Florida, has openings for committed caregivers. **Responsibilities:** These positions will be responsible for all daily husbandry, training and enrichment of the chimpanzee and orangutan residents. **Requirements:** Applicants should have experience working with great apes. Applicants must be available to work any of the seven days of the week, including holidays. **Positions are open until filled.**

Kentucky Reptile Zoo - Slade, KY

Interested parties should apply to: Kristen Wiley, Kentucky Reptile Zoo, 200 L&E Railroad, Slade, KY 40376; or email to: kyreptil@pop.mis.net Kentucky Reptile Zoo has one full-time position available as well as intern positions for the 2005 season. The zoo is an educational exhibit, reptile breeding and venom research facility located near Kentucky's Red River Gorge and Natural Bridge State Park.

Reptile Keeper: Entry-level keeper position. **Responsibilities:** Keepers' primary responsibilities are husbandry and care of animals, precise record keeping, and general cleaning and maintenance of facilities and caging. Additional duties may include interacting with the public, care of feeder animals, and exhibit design and construction. **Requirements:** Experience with reptiles required, venomous experience at a recognized institution preferred. Bachelor's degree in biology, zoology or related field preferred. The successful candidate will display a willingness to work independently, good organizational skills, orientation to details, and a solid understanding of reptile biology. Pay \$8.00/hour, 40-hour work week. Willingness to work Saturday and Sunday and valid driver's license required. Position open until filled; please apply immediately if interested.

Internships: Starting dates are flexible, but a minimum of three (3) months covering spring (April-June) summer (June-August) and fall (September-November) is required. Deadlines for internship positions are **February 1** for spring, **March 1** for summer and **June 1** for fall. **Responsibilities:** The interns will assist in the captive maintenance of the zoo's reptile collection, collect admissions to the exhibit, give interpretive talks and interact with the public, assist with educational outreach programs, and perform other duties as assigned. In addition, interns will be responsible for the completion of at least one special project related to the field of herpetology or to the improvement of the zoo. The intern will not be involved in the handling of any venomous species. **Requirements:** Desirable qualifications include a willingness to handle snakes and other reptiles on a daily basis, ability to communicate effectively with people, writing skills, orientation to details, and self-motivation. The intern will be required to work Saturday and Sunday, with days off during the week. Students majoring in the biological or natural sciences are preferred. Interns are required to be either college students or recent graduates. Former interns have arranged for academic credit with their institutions. Benefits include experience with one of the most extensive and diverse collection of snakes in the United States, housing, and \$55/week to cover expenses. Interns have been successful in finding zookeeper positions; over 95% hire rate! Personal transportation is recommended. A valid driver's license is required.

Keepers and Interns - Paws Exotic Animal Sanctuary, Galt, CA

With three (3) Sanctuaries located just south of Sacramento, CA. No heavy rush hour traffic & a reasonable cost of living in Northern CA. **All positions open until filled.** Send your resumé and at least three (3) verifiable work references to: PAWS, Attn: New Keepers, P.O. Box 849, Galt, CA. 95632. Or Fax 209-745-1809. Or e-mail info@pawsweb.org We need your help taking care of our permanent residents. **Requirements:** If you are reliable, dedicated ... self-motivated, have experience with wild, exotic or large domestics, then we want to hear from you. We offer competitive wages & quality of life.

No experience or limited availability, we are looking for a few good interns. Send us a resumé or a letter telling us a little about yourself & why you want to be a zookeeper or intern at Paws. Include three (3) professional references and when you are available & for how long, to: Paws, Attn: New Interns, P.O. Box 849, Galt, CA. 95632. Or Fax 209-745-1809. Or e-mail info@pawsweb.org Housing provided. To find out more about our four-legged friends & us go to our web site at www.pawsweb.org

Zookeeper/Guides - Soco Gardens Zoo, Maggie Valley, NC

Send resumé to: Soco Gardens Zoo, Jim Miller, 89 Evans Cove Rd., Maggie Valley, NC 28751. Please include cover letter stating dates available to work and letters of recommendation from immediate supervisors, preferably zoo-related, if available. Good opportunity to gain paid zoo experience. Positions are seasonal available March - October and May - October. E-mail address: socogardenzoo@bellsouth.net; website address: www.socogardenzoo.com **Responsibilities:** Duties include but not limited to giving lectures to the public on various mammals and reptiles, participating in the daily feeding, care, and enrichment of mammals and reptiles, and various maintenance. **Requirements:** Must be willing and able to do physical labor, required good oral communication skills, neat appearance, and must work well with co-workers. Must have experience in handling

non-venomous reptiles or a willingness to learn. Non-smokers. Must work six days per week and holidays. Salary: \$240.00 per week. Lodging, utilities and uniforms furnished. No personal pets.

Environmental Educator - The Wolf Conservation Center in South Salem, NY

To apply for this position please email a cover letter and resumé to info2@nywolf.org. No phone calls please. Founded in 1999, the Wolf Conservation Center (WCC) is a private, not-for-profit environmental education organization located in South Salem, NY. The WCC's mission is to promote wolf conservation by teaching about wolves, their relationship to the environment, and the human role in protecting their future. The WCC accomplishes this mission through onsite and offsite education programs emphasizing wolf biology, the ecological benefits of wolves and other large predators, and the current status of wolf recovery in the United States. The WCC also participates in the Species Survival Plan (SSP) and Recovery Plan for two critically endangered wolf species, the Mexican gray wolf (*Canis lupus baileyi*) and the red wolf (*Canis rufus*). The Mexican gray wolf and the red wolf are among the most rare mammals in North America. Presently there are approximately 300 Mexican gray wolves and fewer than 300 red wolves remaining in the world. We are looking for a dynamic and professional environmental educator willing to wear many different hats! **Essential Functions:** 1) Teach WCC education programs to school groups, visiting organizations, and the general public; 2) Assist with the recruitment and training of volunteer teachers and assistants; 3) Perform administrative functions, as necessary; 4) Assist Center programs, events, projects and campaigns as required; 5) Supervise any assigned part-time personnel, interns and volunteers; 6) Assist with education program development by contributing new ideas and experience; and 7) After training, assist in other aspects of the organization's operations including behavioral enrichment, capture team, outreach and merchandising. **Qualifications:** The ideal person to fill this role will be energetic, enthusiastic and passionate about environmental education and protecting the natural world. Must have demonstrated experience in teaching children and adults in formal and informal settings. Knowledge of wolves and wolf recovery in the US is desirable but not required. Demonstrated knowledge of ecology including predator/prey relationships, biodiversity, and food webs is required. Experience teaching and interpreting in the presence of animals is a plus. Qualified candidates will possess excellent organizational, written and verbal communication skills, and computer literacy. Must be knowledgeable about natural history and environmental topics. Must possess a valid driver's license. It is the policy of the Wolf Conservation Center to employ the man or woman best qualified for the job regardless of race, color, religion, age, sex, sexual orientation, national origin, disability (handicap) or marital status. Salary for this full-time position will be commensurate with experience.

Full-time Warden – Six Flags Great Adventure Wild Animal Safari Park, Jackson, NJ

Interested candidates should submit a resume to: Karol Kempke, Human Resource Manager, PO Box 120, Jackson, NJ 08527. **Resumés being accepted until 3/31/05.** Six Flags Great Adventure offers an excellent salary and benefits package. Six Flags is an "Equal Opportunity Employer". Six Flags Great Adventure Wild Animal Safari Park is seeking applications for a full-time Safari Park Warden. The Safari Park consists of 1200 animals including birds, reptiles and mammals. **Requirements:** Applicants must have strength, ability and alertness to work with various species of animals within a Safari Park. Must be 18 years old, have valid driver's license, possess the ability to perform assigned duties in a safe & productive manner and be able to work in all types of weather conditions. **Responsibilities:** Applicants must have the ability to feed animals, clean houses, and general surroundings.

Seasonal Keepers Needed - Claws 'n Paws Wild Animal Park, Lake Ariel, PA

Interested student should send or E-mail their resumes to Vince Hall, Claws 'N Paws Wild Animal Park, Box 1932 Ledgedale Road, Lake Ariel, PA 18436; email at vincehall@cchoes.net. We are looking for a number of college students who are majoring in one of the biological sciences to serve as paid keepers in a zoo. **Requirements:** These applicants should have completed at least one year of college and have had some experience working on a farm or in a stable. Previous zoo experience is desirable. They should also be available for at least three months, beginning in May. **Responsibilities:** Seasonal employees are responsible for many of the same tasks as full-time keeper. They will do the basic cleaning and feeding, and also help with other activities like lory and giraffe feedings, animal presentations, and helping our visitors have an enjoyable visit. The zoo is located in the beautiful Pocono Mountains of northeast Pennsylvania, about two hours from New York City or Philadelphia.

Internship Opportunities – Center for Animal Research and Education, Bridgeport TX

CARE is currently looking for qualified interns for Summer and Fall of 2005. To apply for this position please send your resumé and references to Attn: Heidi Riggs, 245 County Road 3422, Bridgeport, TX 76426. **Responsibilities:** Assisting the Curator and Executive Director in planning and coordinating the care, diet, and habitats of exotic felines. **Requirements:** Candidates must have good written/oral communication skills and the ability to work effectively in a team-oriented environment. Must have or be working on a four-year degree in related field. All candidates must have the ability to lift 50 pounds and a willingness to work outdoors. Weekends and holidays are required. For additional information please visit our website at www.bigcatcare.org.

Environmental Interpretation and Wildlife Care Internship - Trailside Museums and Wildlife Center, Bear Mountain State Park, Bear Mountain, NY 10911-0427. Contact: Jennifer Verstraete at (914) 786-2701 ext. 278 or 265; email - clayne.keith-feller@oprhp.state.ny.us. Start Dates: Summer internship mid-May through mid-August; Fall internship late-August/early September through early November. Internship is unpaid, but provides knowledge and experience; written evaluation gladly given. Possible course credit if intern can arrange it.

Interns will work at least three (3) days a week, including one weekend day. No housing available. We reimburse full payment for required pre-exposure rabies series. **Qualifications:** Enthusiasm, comfortable handling animals, motivated to learn. Must be 18 or older; preference given to college student looking for experience in the care of wildlife and in environmental interpretation. **Responsibilities:** 1) Provide care for permanently injured or orphaned park wildlife (mammals, birds, fish, amphibians and reptiles) in zoo setting. Under the supervision of a Senior Zookeeper will prepare food and diets, maintain enclosures and exhibits, and provide enrichment; 2) Interact with the public answering questions, interpreting exhibits, possibly developing and offering short interpretive talks.

Marine Mammal Intern-John G. Shedd Aquarium, Chicago, IL

Application forms may be downloaded from the Shedd Aquarium's website at www.sheddaquarium.org. A complete job description listing requirements and specifications for the position are located on the Shedd Aquarium's website as well. The Marine Mammal Intern Program is designed to be a career learning experience. Interns will gain first-hand experience in data collection, food preparation, and marine mammal husbandry. Where appropriate, interns may take part in interactions with cetaceans, pinnipeds, otters, and penguins, but animal contact is minimal. The intern works toward accomplishing a special research, observational, or school project. Internships are available in summer (deadline March 1), fall (deadline July 1), and winter/spring (deadline November 1). A commitment of 12-20 weeks, 30-35 hours per week is required.

Aviculture Internship - International Crane Foundation, Baraboo, WI

Applicants should submit a cover letter, resumé, and three (3) letters of recommendation to Kelly Maguire-Aviculture Internships, International Crane Foundation, P.O. Box 447, Baraboo, WI 53913. Final candidates will be notified for a phone or in-person interview. Stipend is \$375/month plus housing provided on site. ICF is a non-profit conservation organization that works worldwide to save the fifteen species of cranes and their habitat by providing experience, knowledge and inspiration to people. Aviculture interns receive hands-on training in the care and management of endangered cranes. Interns will be exposed to general crane husbandry, handling techniques, health care, incubation, artificial insemination, behavior, and breeding management. Responsibilities: vary by season and include daily cleaning, food provisions and other care of adult cranes and chicks comprise half of the job. Other tasks include annual facilities maintenance, pen repair, video monitoring, chick rearing and assisting full-time staff with projects. Requirements: Two years of college or other practical experience with knowledge of and interest in bird conservation. Persons with 4-year college degrees are preferred. Must be able to carry a 50-pound feed bag and do hard work outdoors, in all weather conditions.

Big Cat Internship - Tiger Creek Wildlife Refuge (TCWR), Tyler, TX

For more information and to download an application packet, see www.tigercreek.org Responsibilities: The Big Cat Internship involves Animal Care Apprentice and Public Education. This is a 90-day position (by four quarters/terms) allowing one to gain experience in the zoological field. Job duties include cleaning, diet preparation, light maintenance, educational tours, etc. Interns are responsible for the daily cleaning and health monitoring of a number of exotic feline species including but not limited to: tigers, lions, leopards and pumas. Big Cat Internship opportunities also include working in environmental education with schools and scout groups in a variety of learning activities. You will present short guided lessons on animal care techniques, conservation and rescue methods, backgrounds on the big cats and much more. This wide variety of teaching opportunities and educational training provides the intern with an exciting array of new skills and experiences. Training is provided by the staff. Requirements: At least two (2) years of undergraduate college work in wildlife management, education, biology, or related field. If no college experience then one (1) year in related field required. Applicants must be at least 20 years of age. Animal care experience preferred. These positions require motivated persons with a degree focus in biology/zoology and some experience with a related organization. Housing is provided. Interns provide a strong commitment to the refuge, with a six day work week and light duties on Sundays.

Big Cat Internship - Wildlife on Easy Street, Tampa, FL

For more information contact Scott Lope at 813-323-5991 or email at catfoto1@aol.com.

Two (2) positions available for six-month internship at TAOS accredited non-profit big cat sanctuary. www.wildlifeoneasystreet.com. Responsibilities (include but are not limited to): daily husbandry, exhibit cleaning, diet preparation, feeding, operant conditioning and behavioral enrichment for the following species: lions, tigers, leopards, cougars, lynxes, servals, caracals, bobcats, lemurs and other exotic animals. We provide invaluable hands-on experience, on-site housing and utilities, safety training and educational materials. Advanced training and long-term employment opportunities exist for the right candidates. Requirements: applicants must be willing to work six days a week, some holidays and follow strict safety guidelines. Hard work ethic and love of animals more important than degree.

Internships - The Florida Aquarium, Tampa, FL

Internships are available in Animal Health, Animal Programs and Husbandry departments. Internships available year-round for varying lengths of time and can be tailored to the individual student's needs. Internships are unpaid but provide valuable hands-on experience. Interested persons should send resumé to: Human Resources, 701 Channelside Dr., Tampa, FL 33602. For more information visit our website at www.flaquarium.org. Responsibilities: food preparation, feeding, cleaning enclosures, assist with medical procedures, animal observations, daily record keeping, enrichment activities, assist with training sessions and shows.

Zoo Design Internship - ZooLex, Vienna, Austria

In 2002 the ZooLex Zoo Design Organization started to offer internships. Carlyn Worstell was our first intern. She finished her internship with the ZooLex Zoo Design Organization in September 2003 and is now working with the Wildlife Conservation Society at Bronx Zoo. We offer internships in Vienna, Austria. Interns who stay for a few weeks only, mainly work on the ZooLex Gallery. Interns who stay longer also complete a research project. You will find more information on ZooLex internships here: <http://www.zoolex.org/intern.html>. Design Organization is a non-profit organization registered in Austria. ZooLex runs a professional zoo design website and distributes a newsletter. More information and contact: <http://www.zoolex.org/home.html>

SOS Rhino Seeks Volunteers

SOS Rhino is looking for volunteers interested in helping us in our efforts to save the Sumatran rhinoceros. Our Borneo Team is studying the demographics of the remaining animals in Tabin Wildlife Reserve to determine when patrol units, habitat protection, or translocation may play a role in the rhinos' survival. Please visit SOS Rhino's web site for detailed information: <http://www.sosrhino.org/programs/volunteer.php> Or contact Cindy Salopek, Projects Associate/SOS Rhino via e-mail at: cindy@sosrhino.org

Volunteer Positions - Orangutan Health Project in Sumatra, Indonesia

A research project, now in its 5th year, aims to discover more about the special behaviors and ecological conditions necessary for the maintenance of health in wild orangutans. MV Dr. Ivona Foitova leads a truly international team of scientists in an attempt to improve the environment of captive orangutans, and the chances of work on the ground also helps to guard the forest against the devastating impacts of logging on the natural habitat of one of the last great apes. Responsibilities: volunteers will be part of the team helping in every way - from simple data entry and getting supplies for our base, to locating, counting or following wild orangutans in the forest of North Sumatra. This may not always be enjoyable, but it will certainly be memorable. For more information on the project and our volunteer program, log on to: <http://www.orangutan-health.org> or email us at: orangutanhealth@indo.net.id

Volunteer Positions Available - Munda Wanga's Wildlife Park and Sanctuary - Zambia

For more information contact Lee Stewart through e-mail: sanctuary@zamnet.zm or take a look at our website: <http://www.mundawanga.com> Three week volunteer opportunities available to keen and enthusiastic people looking to gain hands on experience working at an African wildlife park and sanctuary. Species that you could be working with include lions, tigers, wild dogs, various primates, an American black bear and a baby elephant. Volunteer duties will vary hugely upon volunteer's interest, previous experience and the Park and Sanctuary's priorities, which will vary according to the time of year and what construction/relocation programmes are on at the time. Longer volunteer periods are available depending upon volunteer's experience.

More Zoo vacancies can be seen by visiting:

American Zoo and Aquarium Association - Job Listings

<http://www.aza.org/JobListings/>

American Association of Zoo Keepers - Opportunity Knocks

http://www.aazk.org/aazknew/animalKeepersForum/opportunity_knocks.asp

European Association of Zoos and Aquaria - Vacancies

<http://www.eaza.net>

Australasian Society of Zoo Keeping (ASZK)

<http://www.aszk.org.au/Zoo%20Positions%20Vacant.htm>

Zoo Vets, Technicians and interns

http://www.aazv.org/job_openings.htm

Bird Jobs in the Field

<http://www.birdingonthe.net/maillinglists/BJOB.html>

Berufsverband der Zootierpfleger e.V

<http://www.zootierpflege.de/stellen/stellenzooseiten/STzoowebsitesen.html>

If You're Moving.....

Make sure to notify AAZK National of your change of address. Don't miss a single AKF issue! Call: 1-800-242-4519 (US) or 1-800-468-1966 (Canada) or you can email: aazkoffice@zk.kscoxmail.com

AAZK Membership Application

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Mail this application to: AAZK Administrative Offices, 3601 S.W. 29th, Suite 133 Topeka, KS 66614-2054. Make checks/money orders payable to AAZK, Inc. Must be in U. S. FUNDS ONLY. Membership includes a subscription to *Animal Keepers' Forum*. The membership card is good for free admission to many zoos and aquariums in the U.S. and Canada.



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Animal Keepers' Forum
30th Anniversary
1974 - 2004



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ANIMAL KEEPERS' FORUM



The Journal of the American
Association of Zoo Keepers, Inc.

APRIL 2005

Managing Editor: Susan D. Chan • **Associate Editors:** Kayla Grams, Grand Junction, CO & Mark de Denus, Reid Park Zoo • **Enrichment Options Coordinators:** Dawn Neptune, Utah's Hogle Zoo & Rachel Cantrell, Disney's Animal Kingdom • **Legislative/Conservation Outlook Column Coordinator:** Georgann B. Johnston, Sacramento, CA. • **ABC's Column Coordinator:** Diana Guerrero, Big Bear Lake, CA • **Reactions Column Coordinator:** William K. Baker, Jr., Little Rock Zoo

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also serves as AAZK Liaison to the American Zoo & Aquarium Association (AZA)

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Biological Information (formerly Biological Values), 4th Edition - Jan Reed-Smith, Columbus Zoo

AAZK Enrichment Notebook 3rd Edition - Lee Houts, Folsom City Zoo

Resources for Crisis Management in Zoos & Other Animal Care Facilities, Vol. 2 - Susan D. Chan, Topeka, KS



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30th Anniversary
1974 - 2004

About the Cover.....

This month's cover was drawn by Amanda Strandquist who works as a Program Assistant , Conservation & Science, for the American Zoo & Aquarium Association in Silver Springs, MD. "Giraffe" comes from the Arab word *xirapha* (zee-RAF-ah), meaning "the one that walks very fast." Giraffes inhabit a variety of landscapes in sub-Saharan Africa, their geographic location and spot patterns differentiating between nine subspecies. These include the Reticulated, Maasai, Nigerian, Kordofan, Nubian, Rothschild's, Thornicroft's, Southern, and Angolan giraffes. Body coloring is typically tan, but can vary from light tan to almost black and is dependent on an individual's diet and geographic location. The diet of giraffes consists mainly of browse material. They frequently feast on the leaves of acacia trees but never linger at one tree for too long due to the swarms of stinging ants that infest some acacias. Known for their long necks, giraffes have seven cervical (neck) vertebrae like most mammals, only these vertebrae each grow to about a foot in length. Proportionate to their elongated vertebrae is the size of their offspring. When born, giraffe calves stand between 5.5 and 6.5 feet tall and can weight up to 200 pounds. While giraffes in general are not threatened, continued habitat fragmentation and poaching are potential threats to their current status. Thanks, Amanda!

Animal Keepers' Forum publishes original papers and news items of interest to the animal keeping profession. Non-members are welcome to submit articles for consideration. Articles should be typed or hand-printed and double-spaced. Authors are encouraged to submit their manuscripts on a disk as well as in hard copy form. Manuscripts submitted either on disk or electronically as attachments to an email should be submitted in Microsoft WORD. All illustrations, graphs, charts and tables should be clearly marked, in final form and should fit in a page size **no greater than 5.5" x 8.5"** (14cm x 22cm). Literature used should be cited in the text (Brown, 1986) and alphabetically in the final bibliography. Avoid footnotes. Include scientific name (as per ISIS) the first time an animal name is used. Thereafter use common name. Use metric system for weights and measurements (standard equivalents may be noted in parenthesis). Use the continental dating system (day-month-year). Times should be listed as per the 24-hour clock (0800, 1630 hrs. etc.). Glossy black and white or color prints (minimum size 3" x 5" [8cm x 14cm]) are accepted. Clearly marked captions should accompany photos. Please list photo credit on back of photo. Photographs may be submitted electronically as either JPEG or TIFF file attachments.

Articles sent to Animal Keepers' Forum will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for AKF. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 1-800-242-4519 (US); 1-800-468-1966 (Canada); FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com<

Deadline for each regular issue is the 10th of the preceding month.

Dedicated issues may have separate deadline dates and will be noted by the editor.

Articles printed do not necessarily reflect the opinions of the AKF staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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E-Mail Addresses: You may reach Barbara Manspeaker at AAZK Administrative Offices at: aazkoffice@zk.kscoxmail.com< You may reach Susan Chan and *Animal Keepers' Forum* at: akfeditor@zk.kscoxmail.com<

AAZK Website Address: www.aazk.org

BFR Website: <http://bfr.aazk.org>

Scoops & Scuttlebutt



Chapters Support AAZK, Inc. Through Donations

As recharter packets have begun to arrive, so have donations from AAZK Chapters to help fund the Association's projects and programs. The AAZK Board of Directors and the Administrative Office staff would like to thank the following Chapters for their donations: Puget Sound AAZK Chapter (Seattle, WA) \$1000.00 (General Operating Fund - GOF); San Antonio AAZK Chapter (TX) \$50.00 (GOF); Cape May County Zoo AAZK Chapter (Cape May, NJ) \$100.00 (Conservation, Preservation Restoration Grant Fund - CPR); Knoxville Zoo Chapter (TN) \$500.00 (AAZK Endowment Fund- EF); Nashville Chapter AAZK (TN) \$100.00 (GOF); Orange County Chapter (Santa Ana, CA) \$100.00 (50/50 to GOF and CPR); Rocky Mountain Chapter AAZK (Denver, CO) \$250.00 (GOF); AAZK of New Bedford Chapter (MA) \$25.00 (CPR); Detroit AZK Chapter (MI) \$200.00 (50/50 to GOF and EF); Chesapeake AAZK Chapter (Salisbury, MD) \$750.00 (CPR); Mesker Park Zoo AAZK Chapter (IN) \$25.00 (CPR); Point Defiance Chapter AAZK (Tacoma, WA) \$773.33 (GOF); Snake River AAZK Chapter (Idaho Falls, ID) \$100.00 (CPR); Central Illinois Chapter of AAZK (Henson Robinson Zoo) \$100.00 (CPR); Northern Lights Chapter AAZK (Duluth, MN) \$360.00 (GOF); San Diego AAZK Chapter (CA) \$250.00 (CPR); San Francisco Chapter AAZK (CA); \$200.00 (GOF); North Carolina Chapter AAZK \$200.00 (EF); and the Southern Ontario AAZK Chapter (Ontario) \$400.00 (CPR). Our sincere thanks for your support.

Professional Development Committee Announces New Chairperson

The AAZK Board of Directors is pleased to announce that Tammy Schmidt of the Saint Louis Zoological Park (St. Louis, MO) has been named Chairperson of the Professional Development Committee. Duties of this committee will include the development of seminars and courses that will be made available to animal care professionals. If you are interested in working on this committee, please contact Tammy at rhino@stlzoo.org<

Project Seeking AAZK Support - submitted by Patty Pearthree, Bowling for Rhinos Coordinator

I recently met Anne Taylor while on safari at Lewa Wildlife Conservancy in Kenya. She was on her way back to Masai Mara to rescue eight lion cubs that had been orphaned when their mothers were poached the previous day. Anne told me the problem is ever increasing and pleaded with me to tell others about the following important project.

Poaching for ivory and rhino horn have historically devastated populations of elephant and rhino all over Africa. Kenya has often led the African nations in their battle against poaching. Currently a new form of poaching, the commercial bushmeat trade, threatens the continued survival of the wildlife in Africa. Efforts are being taken in many parks in Kenya to increase patrols and remove wire snares set by poachers. One of the horrible consequences of snaring is that it is not species-specific and can indiscriminately kill and injure non-target species. **The Anne K. Taylor Fund** works in Masai Mara to help control bushmeat poaching and conduct community education programs about the importance of wildlife.

Some of the migratory animals at Lewa such as the elephant move through many of these areas including Masai Mara. Anne is currently seeking donations to fund these efforts and is seeking voluntary veterinarian assistance with animal rescues. If you are interested in supporting these efforts, please visit : www.aktaylor.com/ak_fund/akfund.htm<

Be Sure to Check Out the Conference Website!

Take a few minutes and check out the website established by the 2005 AAZK Commference Committee from New Orleans. Not only can you find tentative schedules, pre- and post-conference trip information, hotel info, and downloadable registration forms - but you can learn more about the "Big Easy" and even learn some New Orleans-speak! It's fun, it's functional, and it will get you ready for your trip to the 2005 AAZK Natinal Conference. Visit at www.aazk2005.org<



AAZK Grant Programs!

Travel, Conservation, Research, and Professional Training

The Geraldine Meyer/AAZK Professional Travel Grants. A total of \$2,000.00 is available annually. Grants are awarded twice a year, in May and November. Applications, from new and experienced keepers, are evaluated on their merit based on the member's submission of all requested materials. Awards may range from \$1,000.00 to \$250.00 or less depending on need. Applicants are encouraged to solicit additional funds from their institution or other sources. Applicants with other committed funds, or in-kind support (time off) will receive slight priority but all applications are encouraged.

Applications for mid-year consideration are due by February 1 of the calendar year; applications for end of the year consideration are due by July 1 of the calendar year. Money will be available upon notice to the recipient. Winners are required to submit an article to the Forum on the workshop or research they participated in.

AAZK awards \$1,000.00 to the winning applicant to attend the new *Advances in Animal Keeping Course* offered by AAZK and AZA through the AZA professional schools program. Applications are due by July 1 of the year prior to the one in which the applicant wishes to attend this course.

Conservation, Preservation, and Restoration Grant awards up to \$1,000.00 once a year for projects oriented toward all conservation, preservation, or restoration of habitats/species with a preference for projects taking place in the U.S. but not limited to this. Applications are due June 1 of the calendar year for funding the following year.

Research Grant awards up to \$2,000.00 once a year for AAZK member driven research projects, small or large! Applications are due June 1 of the calendar year for funding the following year.

Information on and application forms for the AAZK grant program are available on the AAZK website or by contacting the Grants Committee Co-Chair Jan Reed-Smith (jrsotter@iserv.net, jan.smith@columbuszoo.org or 616-366-1033); or Shelly Roach (shelly.roach@columbuszoo.org).

New Orleans University/Zoos Join Forces for New Program

The University of New Orleans, or UNO, has joined forces with three of the country's premier zoos to conduct advanced research and training for the management and survival of wildlife species around the world. UNO has signed a five-year memorandum of understanding with the Smithsonian National Zoo in Washington, D.C., the San Diego Zoo, and the Henry Doorly Zoo in Omaha, Neb. UNO and the zoos will work together to recruit and train exceptional undergraduate and graduate students in conservation biology, and apply research advances to the management and survival of wildlife species in captivity and in the wild. The partners also will work together to further public education and awareness of conservation issues and raise funds to support their activities. The cooperative project has been named ZUNO.

UNO biological sciences Professor Barry Bavister, one of the ZUNO program directors, said the initiative will allow graduate students in UNO's doctorate program in conservation biology to gain up to three months of hands-on research experience at the facilities of the three zoos and at their sites in Africa, Asia and elsewhere. "It provides opportunities that simply aren't available here," Bavister, the Freeport-McMoRan Chair of Reproductive and Conservation Biology at UNO, said. The National Zoo, for instance, has a giant panda exhibit, and the San Diego Zoo has field conservation work sites in China, Africa, South America, and the Pacific and Caribbean islands.

Under the terms of the memorandum of understanding, UNO faculty engaged in animal reproduction and conservation research will design research projects with the research laboratory directors of the zoos. Research staff from the zoos will in turn gain access to UNO's state-of-the-art facilities and equipment, including a molecular biology laboratory and a cellular imaging facility.

The research directors of the three zoos, all internationally known animal conservation researchers, will visit UNO periodically to take part in formal and informal teaching activities.

The research directors are David Wildt, head of the Department of Reproductive Sciences at the Smithsonian National Zoological Park's 3,200-acre Conservation & Research Center in Front Royal, Va.; Barbara Durrant, head of the Reproductive Physiology Division at the San Diego Zoo's Center for Reproduction of Endangered Species; and Naida Loskutoff, head of reproductive physiology at the Henry Doorly Zoo's Center for Conservation & Research. The directors also can serve on the doctorate committees of selected graduate students as adjunct UNO faculty.

UNO already has a collaborative affiliation with the Audubon Center for Research of Endangered Species, or ACRES, in Algiers. That collaboration emphasizes research in reproductive and cell biology. ACRES is part of the 1,200-acre Freeport-McMoRan Audubon Species Survival Center. Officials with the Audubon Institute of New Orleans and the LSU System signed an agreement in late 1998 establishing a research and educational affiliation to focus on developing technologies to preserve endangered species for the future. --Joe Gyan, Jr. - from ZooNews Digest link

AAZK Data Forms Available

Data transfer forms are available gratis to zoological institutions by contacting the AAZK Administrative Offices at 1-800-242-4519 (U.S.) or 1-800-468-1966 (Canada). These include the original Animal Data Transfer Form (ADT), the Enrichment Data Transfer Form (EDTF), and the Operant Conditioning Data Transfer form (OCDTF). We encourage all zoological institutions to utilize these forms when shipping an animal to another facility. Having this information travel with the animal, and made available will help ensure that receiving staff has all the pertinent data on that animal to help make the transition to its new home easier, and hopefully, less stressful. With the greater emphasis on enrichment and training at all AZA-accredited facilities, this information will prove especially important in providing continuity and consistency when an animal is shipped. Encourage your facility to make use of this important, and free, resource provided to the zoological community as a professional courtesy by AAZK, Inc.

The North of England Zoo Society Announces 2005 Richard Hughes Scholarship

Chester Zoo is a leading Zoological Garden in the U.K. actively involved in the conservation of threatened species, habitat support, scientific study and the provision of education and recreation to the general public.

In February 2001 Richard Hughes, a senior keeper at Chester Zoo, tragically lost his life working with the elephants that he loved. In memory of Richard, Chester Zoo has dedicated an annual scholarship award to support individuals wishing to undertake activities or projects concerned with elephant management, welfare and conservation.

The scholarship is open to applications for any type of activity or project that deals with issues of elephant management, welfare or conservation, in the UK or overseas. The scholarship aims to support the development of young people wishing to work with elephants; it is open to individuals only and does not support proposals from organizations or institutions. Proposals can cover any activity, and need not be academically based. Applications are encouraged from those wishing to develop their interest in elephants, including animal keepers, researchers and students. Details we require for applications include an outline of the project, aims and a statement of its relevance. Clearly, feasibility will be an important criterion when judging the submitted proposals.

The North of England Zoological Society expects those awarded the scholarship to uphold the high standards that it expects of its own employees and to be fully acknowledged in any presentations/publications. It is a condition of the scholarship that the Zoo receives a full report on the completed project/activity and, if applicable, copies of any resultant publications.

Scholarships will be awarded up to the value of £1000 for which the Society may require receipted expenses (Any special equipment purchased will remain the property of the society). Application forms are available from Scott Wilson, Conservation Assistant, The North of England Zoological Society, Chester Zoo, Caughall Road, Upton by Chester, Cheshire, CH2 1LH or via email from s.wilson@chesterzoo.co.uk. Applications should be received **no later than Friday 29 April 2005**. Applicants will expect to hear whether or not they may be required for interview by 27 May 2005.



From the President

Spring is upon us and with it the promise of renewal. The trees are leafing out, flowers blooming, and allergies in full force. Along with the natural renewal taking place it's also time for renewal and growth in AAZK. That's right, it's election time! Shortly Professional Members will be receiving your election ballots. This is your opportunity to choose the direction of the Association by choosing your candidates for the Board of Directors. Keep in mind these are your representatives and they help direct the Association for you. The candidates took the time to fill out their nomination forms and have others nominate them and are waiting to contribute to your

Association. Please take the time to vote and I encourage you to take the time to read through their nominations and their bios. I can guarantee you it will take you less time to read through them than it took for these people to write them. I know most of the names on the list personally and they are all great choices. You've got an important decision to make. Please take the time to make it.

It's also time again for traveling training. I will hopefully be seeing some of you in Sacramento for the second offering of the AZA course *Advances in Animal Keeping*. In these tough economic times funding may be hard to come by. AAZK does offer travel and other grants to assist you with opportunities such as this. More information on the types of grants offered can be found either in your AKF or on the AAZK website at www.aazk.org (look for "Grants" button on left side of home page). This is an important resource and benefit that is not utilized nearly enough. It's there for you, take advantage of it.

In the meantime remember to vote, remember to fill out our new survey, take advantage of the grants we have to offer, and don't forget to enjoy the renewal of springtime. Summer is just around the corner and since I live in Phoenix which means HOT, I think I'll go outside and enjoy the spring. Take care and be safe.

Denise C. Wagner
President, AAZK Inc.

Amazon.com Users-- Don't Forget the AAZK Connection

Just a reminder that if you regularly (or even occasionally) purchase items on *amazon.com*, there is a way you can also help out the Association while you are doing your shopping. If you go to *amazon.com* from the AAZK Home Page (www.aazk.org), the Association will receive 5% of the cost of your purchase. The *amazon.com* icon is at the bottom right of the AAZK Home Page. And the percentage from purchase of goods is on all items you purchase there - books, music, etc. So next time you want to do a little online shopping at *amazon.com*, get there through the AAZK website and help out your professional organization.

Coming Events

ASZK 2005 Conference - 29 April - 1 May 2005 at Ciloms Airport Lodge Melbourne and Werribee Open Range Zoo. Theme is "Conservation and Conditioning". Abstracts must be submitted by 25 March 2005. Information can be obtained from the ASZK website <http://www.aszk.org.au> or email Liz Romer on slromer@bigpond.com

Fourth Rhino Keepers' Workshop - 5-9 May, 2005 in Columbus, OH. For further information contact Adam.felts@columbuszoo.org<

4th Annual Callitrichid Behavioral Husbandry and Management Workshop - 21-22 May 2005 - to be held at The Smithsonian's National Zoo and The National Aquarium in Baltimore; Washington D.C. Presented by the Cotton-top Tamarin SSP. Free with Pre-registration. E-mail MICKELBERGJ@nzp.si.edu for pre-registration form and abstract guidelines. For information contact Michelle Farmerie at (412) 365-2385.

Second International Conference: Animals and Zoos, Current Research Focus - 24 - 25 May 2005 at Malta Training Centre, Wiankowa Str. 3., Poznan, Poland. Address for correspondence: "ZOO Conference", Ogród Zoologiczny w Poznaniu, Ul. Browarna 25, 61-048 Poznan. Tel. (+48 61) 61-8709502; Fax (+48 61) 877 35 33; e-mail: zoo.cwiernia@interia.pl

7th World Congress of Herpetology - 20-24 June, 2005 at Conservatorium for Music, Stellenbosch University Campus, Stellenbosch, South Africa. Please visit the website <http://www.wits.ac.za/haa/> or contact the organizer at conf@conferencetsetal.co.za< Dr. Ernst HW Baard Manager: Scientific Services Western Cape Nature Conservation Board, Private Bag 5014 7599, STELLENBOSCH; Tel: +27-21-866 8001; Fax: +27-21-866 1523; Mobile: 082-41 40 424; Scientific Services office no. +27-21-866 8000. Visit our website: <http://www.eapenature.org.za>

7th International Conference on Environmental Enrichment - 31 July - 5 August, 2005, hosted by the Wildlife Conservation Society in New York City, NY. Registration fee is US \$250. Conference site is Columbia University, with day trips to Central Park Zoo and the Bronx Zoo. Housing arrangements have been made for Columbia dorm rooms, starting at \$45 per person, double occupancy. The theme is "Unifying the Art and Science of Animal Enrichment". Please visit wcs.org/icee2005 for more information on submitting papers and registering for the conference. Please contact icee2005@wcs.org if you have any questions.

Association of Avian Veterinarians 26th Conference 8-11 August in Monterey Bay, CA. For more information or to view the entire program visit www.conferenceoffice.com/aav or you can email aav@conferenceoffice.com; phone 303-756-8380.

1st EAZA Training Seminar for Zoo Educators - 15-21 August 2005 hosted by the Copenhagen Zoo. For further inquiries, please contact Peter Haase (pnh@zoo.dk) at the Copenhagen Zoo.

28th Annual Meeting of the American Society of Primatologists - 17-20 August 2005 in Portland, OR. For more information, contact: Dr. Kristine Coleman, Chair of the local organizing committee, at colemank@ohsu.edu

First European Congress of Conservation Biology 23-27 August, 2005 in Eger, Hungary. Organized by the Society for Conservation Biology - European Section and the Hungarian Natural History Museum. This cornerstone international event will for the first time bring together academics, students, policy makers, natural resource managers and NGO representatives from all over Europe to address all aspects of conservation biology from research to application. Please visit the website (<http://www.eccb2006.org>) for details, and register for new information.

32nd AAZK National Conference - 28 August - 1 September 2005. Hosted by the Audubon AAZK Chapter and the Audubon Nature Institute. Watch *AKF* in the coming months for more information.

26th Annual Elephant Managers Association Workshop - 5-9 October, 2005 in Portland, OR. Hosted by the Oregon Zoo. Pre-conference trip will be to the Point Defiance Zoo (5 Oct.); the post-conference trip will be to Wildlife Safari (10 Oct.). For more information please visit their website at <http://www.oregonzoo.org/ElcphantWorkshop> or email clephants@metro.dst.or.us

Second International Congress of Zookeeping (ICZ) 7-11 May 2006 in Gold Coast, Queensland, Australia. Visit website: <http://www.iezoo.org> for latest information. See information on First Call for Papers in the November 2004 issue of *AKF*.

2006 International Gorilla Workshop - 23-26 June 2006 at Paignton Zoo, Devon, England. Will include Icebreaker, three days composed of plenary sessions, discussion workshops and zoo visits. Post-conference tour will include several significant U.K gorilla/primate collections including Howletts and Port Lympne Zoos. Watch here for further information.

Post Your Coming Event Here - email to:
akfeditor@zk.kscoxmail.com

From the Executive Director

An Important Note to the Professional Membership Zoo Keeper Survey Seeks to Profile the Profession

Very soon our members in the Professional category will receive a survey in the mail. The survey, authored by Brigham Young University and Washington University, with specific input from the American Association of Zoo Keepers, Inc, will discuss with you, your thoughts on the passion of exotic animal keeping. Similar surveys for a membership of our size, compiled and calculated by a university or similar would cost this Association about \$10,000. This survey is being performed gratis. You won't even have to buy a stamp.

Exotic animal keepers mystify the business world. You are highly educated, you analyze and problem solve issues such as dietary and medical cases, with sometimes one-sided information and perform complex tasks with very dangerous species. Finally, when you put all that together, you do it all for very little money.

At first glance, the survey will seem long and complex, but in fact, the survey is simple, but it is long. The questions are directly related to the animal profession, animal facilities, animal managers and your Association. The survey is completely anonymous.

This survey will also be sent out to approximately 1500 professional animal keepers in the U.S., who are not AAZK members, so please do not fill out the survey twice. The answers from Professional AAZK members will be compared to non-AAZK members.

At the conclusion of the survey, is a short section regarding AAZK. Answer the questions honestly and tell us how we're doing, and how we can improve.

As an incentive to complete the survey, you can enter a contest sponsored by the Universities that collaborated on the survey. Cash prizes will be awarded to the conservation group of your choice.

Thank you in advance for completing and mailing your survey.

A handwritten signature in black ink, appearing to read 'Ed Hansen', with a stylized flourish at the end.

Ed Hansen
Executive Director / AAZK Inc.

AAZK Announces New Members

New Professional Members

Lori Valois, Anne Barilla, Melissa Ciccarello, Frank Calcione and Stephanie Mitchell, **Roger Williams Park Zoo (RI)**; Lindsay Caruba, **Beardsley Zoo (CT)**; Seth Groesbeck, no zoo listed (NY); Debbie Tobin, **Rosamond Gifford Zoo (NY)**; Kristin Nelson, **Ross Park Zoo (NY)**; Justin Garner, **National Aviary (PA)**; Paul Kalka, **The Philadelphia Zoo (PA)**; Jason Montgomery, **Santa Fe Community College Zoo (FL)**; Brent Peavy, K. Nicole Strain, Michelle Morgucz, Tara Cecil and Amanda Wheat, **The Birmingham Zoo (AL)**; Stephanie Greene, Shelley Norris and Kerie Yvonne Corley, **Nashville Zoo at Grassmere (TN)**; Jessica Jozwiak, **Detroit Zoological Park (MI)**; Dawn Wicker, **Milwaukee County Zoo (WI)**; Carmen Murach, no zoo listed (IL); Sheila Wojciechowski, **Brookfield Zoo (IL)**; Lindsey Kruschke, **Glen Oak Zoo (IL)**; Erin S. Connet, **Saint Louis Zoological Park (MO)**; Stacy Specht, **Kansas City Zoo (MO)**; Christopher A. Wagner, **Topeka Zoological Park (KS)**; Justin Jensen and Dina Wavrunek, **Northeast Nebraska Zoological Society (NE)**; Denise McKinney, Courtney Herremann, and Diedre Havnen, **Audubon Nature Institute (LA)**; Fred Varnell, Jason McCaslin, Bobby Threet and Megan Lee, **Amarillo Zoo (TX)**; Jeremy Dillion and Jeannette Schwab **Cheyenne Mountain Zoo (CO)**; Gabe Kibe, **Denver Zoo (CO)**; Robin Valois, no zoo listed (CO); Bonnie Kangas and Debra Vasquez, **Albuquerque Biological Park (NM)**; Amy Lindeman, **Wild West Park (NM)**; Rayna Williams, Ashley Ann Hermans and Elta Chapman, **Santa Ana Zoo (CA)**; Justin Chuvén, Alexandra Stakkard, Erin Gouveia, **San Diego Wild Animal Park**; Melany Marotta, **Exotic Feline Breeding Compound (CA)**; Justin Miller **San Francisco Zoo (CA)**; Lisa Barr and Donna Why, **Oakland Zoo (CA)**; Renae Thompson, **Happy Hollow Park & Zoo (CA)**; Jane Patricia Carney, **Panaewa Zoo (HI)**; and Jacinthe Bouchard, **Parc Safari (Quebec, Canada)**.

(PLEASE NOTE: If you joined or renewed via the AAZK website and used PayPal, please be aware that we do not receive your zoo affiliation information from PayPal, only your mailing address. If you want your zoo listed with your name when it is published in AKF, please contact our office after you join/renew online to advise us of this information. Call 1-800-242-4519 (US) or 1-800-468-1966 (Canada); or email at aazkoffice@zk.skcoxmail.com Thank you.)

New Institutional Members

Buttonwood Park Zoo
New Bedford, MA
Bill Sampson, Acting Director

Binder Park Zoo
Battle Creek, MI
Gregory B. Geise, President & CEO

Woodland Park Zoological Gardens
Seattle, WA
Deborah Jensen, President & CEO

Renewing Institutional Members

Taronga Zoo Education Centre
Mosman, NSW, Australia

Wildlife World Zoo
Litchfield Park, AZ
Mickey Ollsen, Director

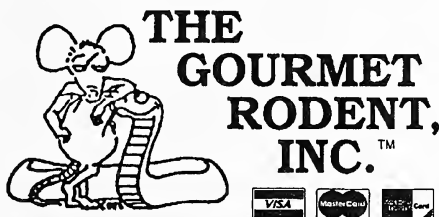
Jardin Zoologique du Quebec - SPSNQ
Charlesbourg, Quebec, Canada

Calgary Zoo Library
Calgary Zoo, Calgary, AB, Canada

The Gourmet Rodent
Archer, FL
William E. Brant, President

Renewing Contributing Members

Bonnie Jacobs, Keeper
Lincoln Park Zoo, Chicago, IL



RATS AND MICE

Bill & Marcia Brant
6115 SW 137th Ave., Archer, FL 32618
(352) 495-9024
FAX: (352) 495-9781
e-mail: GrmtRodent@aol.com

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AAZK Seeks Applicants for Webmaster Position

>>> Deadline for applications is 30 April 2005<<<

The American Association of Zoo Keepers Inc. is looking for a new webmaster or web designer. Please review the position overview, qualifications, terms of employment, and instructions on applying if you are interested in this position.

Position Overview - This position will oversee and implement the website for the American Association of Zoo Keepers, Inc. AAZK is a nonprofit (U.S. 501c3) volunteer organization made up of professional zoo keepers and other interested persons dedicated to professional animal care and conservation. AAZK shall endeavor to create and maintain a website and/or web pages. This website shall receive approval from the current Board of Directors of the American Association of Zoo Keepers, Inc. This website shall be reviewed annually by the Board of Directors/AAZK and shall be under the oversight of a Board Member appointed by the President of the Association. AAZK shall maintain, develop and maintain criteria for the content and management of the site to include conformation to the Articles of Incorporation and the published Statement of Purpose for the Association. The webmaster will interface with the staff of Administrative Offices as well as the Board of Directors for website content. The webmaster will be expected to update the site on a regular basis as needs arise for the Association. Qualifications for the position are listed below.

Qualifications:

- Expertise in current Internet standards, including Web browsers and browser specifications.
- In-depth knowledge of one or more current web markup or scripting languages: HTML, XHTML, CSS, Javascript.
- Experience with at least one desktop publishing/imaging application in each of the following categories:
 - o Photo Editing (Adobe Photoshop, Paint Shop Pro)
 - o Drawing (Macromedia Freehand, Adobe Illustrator, Corel Draw)
 - o Page Layout (Adobe Pagemaker)
 - o Presentation (MS PowerPoint)
 - o Multimedia (Macromedia Director, Flash, streaming audio and video)
 - o Others (Adobe Distiller/Exchange, GifBuilder, GifConverter, 3ds Max, etc.)
- Experience with managing web site content.
- Ability to learn new Internet and authoring technologies relevant for web site development.
- Strong background with one of the following OS's and familiarity with the others: Windows (ME/ 2000/XP), Mac, Unix (Linux).
- Understanding of dynamic or active web content and the use of Perl, C/C++, CGI, and/or SQL.
- Ability to manage e-commerce (PayPal*) content and shopping cart design.
- Ability to clearly document all projects and track time efficiently and submit invoices.
- Effective verbal and written communication skills and the ability to interact professionally with staff and Directors.
- Experience with developing password protected or "Members Only" sections of websites or the ability to learn this technology.
- Attention to detail is required.

Terms of Employment - The period of employment for this position commences upon hire and continues for one year. A Memorandum of Agreement is to be signed by AAZK Inc. and the webmaster. The MOA's one year term will be reviewed annually and is subject to termination or renewal by either the webmaster or Executive Director of AAZK at the end of the one year period. Simple updates to the website would be capped at a maximum of 4 hours per month. Re-designs or large projects would require a bid of anticipated time and cost be submitted to the Board of Directors for approval. This position is not a full time position nor is it expected to become full time. It is not expected to be the sole source of income for the individual who takes the position.

To apply: Please submit a resumé or curriculum vitae and a salary offer (hourly) to the Administrative Offices at: AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054. Include the web addresses of any websites currently designed or maintained by the applicant for review by the Board of Directors. **Deadline for applications is 30 April 2005.**

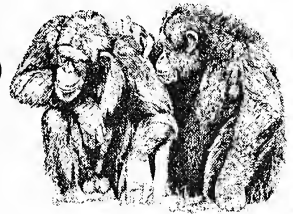
UGANDA "101"

For Zoo staff and families - Departs April 29, 2005 for 11 marvelous days of adventure. Only \$3195.00 per person Land and Air.
Gorilla treks available for two days at \$360.00 per day.
Gorilla permits to be paid separately and are non-refundable. Call for free brochures about this wonderful opportunity.

Highlights:

United/Kenya Airways via London to Nairobi and Entebbe
Kibale Forest walks to see chimpanzees and other primates
Queen Elizabeth National Park - visit en route
Impenetrable Forest National Park - two days
available for gorilla trekking (permits separate)
Kampala - Mpigi Royal Drum Makers

Don't miss this exceptional opportunity!



Namibia- Basic Camping Safari -November 2005

This safari is for the adventurous zoo person and his/her family!
10 exciting days \$2995.00 per person

Highlights:

Walvis Bay cruise - Cape fur seals, penguins, dolphins!
Etosha National Park - rhino, elephants, black-faced
impala, lion, leopard, wildebeest and springbok!
And much much more!

CCF - visit Laurie Marker's Cheetah Conservation Fund for
up-close and personal encounters with cheetah

Morning visit to REST - see Cape Griffon Vultures and
hear about the conservation efforts of these great
birds from expert Maria Diekmann

Land and Air from New York or Atlanta.
Call **1-800-323-8020** for your free brochure.

Kenya 101 - Highlights of Kenya



- Possible departure November 2005
- Details to follow!!

AAZK Book Sale

Sale price is 20% off the Suggested Price.

Previous books may still be available, with some price increases.

<u>Sug. \$</u>	<u>Sale \$</u>	<u>Item Title and Description</u>
\$25.95	\$20.76	<u>Antipode: Seasons with the Extraordinary Wildlife and Culture of Madagascar</u> – Heather A. Heying – As a field biologist, Heather Heying has been to some of the most remote, creature-filled places on the globe. But nothing she had previously experienced quite prepared her for the three seasons she spent in Madagascar studying poisonous frogs. 288 pages, hardcover
\$50.00	\$40.00	<u>The Circle of Life: Wildlife on the African Savannah</u> – Anup & Manoj Shah- These extraordinary photographs take the reader on a spectacular journey into the heart of the African savannah concentrating on the Serengeti Maasai Mara and Ngorongoro Crater regions in Kenya and Tanzania. The text complements the images, starting with the basic elements necessary for life on the savannah and gradually building up to the intricate, dynamic interactions between the plants and animals in the food chain and their environment. 288 pages, hardcover
\$25.00	\$20.00	<u>Every Creeping Thing: True Tales of Faintly Repulsive Wildlife</u> Richard Conniff - Conniff focuses on some of the least huggable members of the animal world. Through their lives, he introduces us to some of the strangest behaviors on earth. 240 pages, hardcover
\$16.95	\$13.56	<u>The Atlas of Endangered Animals</u> – Steven Pollack – Readers are introduced to the varied problems that threaten the natural balance of the earth and its inhabitants. Each of these threats to the globe are examined region by region. The “Further Information” section contains addresses of organizations involved in environmental protection in the United States and Canada. 64 pages, hardcover
\$16.95	\$12.80	<u>Seals and Sea Lions</u> – David Miller – Seals and sea lions are playful, curious, supremely adaptive and are among the best loved of wild animals. Here, their largely invisible lives are honored, so that we can learn some of their secrets, and appreciate why their long-term protection concerns us all. 72 pages, paper
\$18.95	\$15.16	<u>How to Photograph Animal in the Wild</u> – Dr. Leonard Lee Rue – Advice and details on photographing animals creates a book for all skill levels. The best camera, lenses and film are discussed, as are camouflage, blinds, scents and decoys. 144 pages, paper

To Order: List the items you are ordering along with your name and complete mailing address. Include a shipping fee of \$3 for the first item and \$2 for each additional item. Check payable to: “AAZK Book Sales” (US FUNDS ONLY - NO CASH OR COD’s please). Sorry we cannot process credit card orders. **Call or fax for shipping fees when ordering from outside the continental United States before sending any money.** We will work to find the best form of shipment.

Mail requests to: AAZK Beardsley Zoo Chapter, attn.: Linda Tomas
1875 Noble Ave., Bridgeport, CT 06610

Phone: 203-332-4249 Fax: 203-394-6577 E-mail: ltomas@beardsleyzoo.org<

From the Executive Director

This year, I'd rather not beg.

It's that time of year for interested Chapters to formulate their bid to host the annual AAZK Conference. This year in New Orleans, the membership will be voting on the hosts for the 2008 National AAZK Conference.

Interested Chapters, in good standing with the Association, can contact me for the details needed to complete a Bid Package. The required materials can also be found in your copy of the Operations Manual for the Association. In brief, we require a list of Chapter officers, a letter of support from your institution and city, and finally, a copy of your Chapter's current financial statement.



I know there are a few Chapters that have hinted at a bid for 2008, but so far early in the process, I have nothing concrete from any Chapter.

I would like to tell you that hosting an Annual AAZK Conference is a painless and fun process, but I would be lying. It's tough, very tough. Chapters are charged with putting together an up-to-date program, that not only captures the interest of the animal keeper, but also the facility director who may be supplying the travel budget. Workshops must be on the cutting edge and of professional interest to the delegate. Working with hotels, organizing ground travel, coordinating fundraising, arranging entertainment – every aspect can be intimidating to a Chapter.

If your Chapter is interested in formulating a bid, or needs more information on the bid process, you can contact me by e-mail, through the Administrative Offices of the Association or the AAZK website (www.aazk.org) under "Committees" – Annual AAZK Conferences.

*Ed Hansen, AAZK Executive Director
Tucson, AZ*

Deadline is June 1st for Research and CPR Grant Applications !

The American Association of Zoo Keepers announces the availability of two granting opportunities:

The Conservation, Preservation and Restoration (CPR) Grant – This \$1,000.00 grant is designed to encourage and support efforts in conservation conducted by keepers and aquarists in zoological parks and aquariums around the world. Members of AAZK, Inc. in good standing are eligible to apply and receive this grant. The member **MUST** have an active role in the conservation effort submitted for consideration. The division of this grant between two projects is at the discretion of the CPR committee. Funds are made available only after a progress report and receipts have been submitted.

The Zoo Keeper Grants in Research – Two \$1,000.00 grants are funded annually to encourage and support noninvasive research conducted by keepers in zoo and aquarium settings. The principal investigator **MUST** be a full-time keeper and a member of AAZK, Inc. in good standing.

Deadline for application submission for either grant option is **1 June 2005**. Successful grant recipients will be announced at the AAZK National Conference in Fall 2004. The grant cycle runs from 01 January 2005 to 31 December 2006. For further information and application forms, see the AAZK Website at www.aazk.org or contact Jan Reed-Smith, AAZK Grants Committees' Chair, jrsotter@iserv.net, 616-693-2680, Fax: 616-374-3263. Please specify which grant program you are interested in.

International Congress on Zookeeping



Global Networks – Animal Welfare – Husbandry – Conservation – Professionalism – Knowledge

SPONSORS NEEDED!

Second International Congress of Zookeeping

Here's another reminder to mark your calendar for May 7-11, 2006!

Those of you who participated in the first ICZ last year in The Netherlands know what an amazing experience it was, and we hope you will plan to attend the next one on Australia's Gold Coast.

What you may not know is that generous donations from various AAZK Chapters greatly reduced the final cost of attending the conference. In the end, the total cost per participant was just \$350, which included registration, lodging, and most meals. We reached this affordable price thanks to donations from local AAZK Chapters and the various international professional keeper associations. Compared to some of the conferences we usually attend, this was a real bargain!

In some cases, local AAZK Chapters banded together to completely fund keepers from developing countries who would otherwise be unable to attend. These Chapters pooled their resources to pay airfare and registration costs for individuals from Latin America and other areas.

We intend to continue this generous tradition, and hope your AAZK Chapter will consider sponsoring a keeper from another country. If you prefer, you can simply donate to the general operating costs of the conference in order to reduce the overall registration cost for all participants.

Start planning an ICZ fundraiser now. Your donation can really make a difference to keepers (and animals!) in parts of the world without access to our resources.

Please send your designated ICZ donations to: AAZK, Inc., 3601 S. W. 29th St., Ste. 133, Topeka, KS 66614-2054.

Any questions? Contact
Shane Good: sjg@clevelandmetroparks.com
or
Norah Farnham: Norah.Farnham@zoo.org

Call for Papers - Volume II

Resources for Crisis Management in Zoos & Other Animal Care Facilities

The American Association of Zoo Keepers, Inc. (AAZK) is seeking submissions for our newest reference/resource publication, Volume II of *Resources for Crisis Management in Zoos & Other Animal Care Facilities*. Subject matter should be applicable to crisis management, zoological safety, emergency preparedness planning, public relations, case histories, and staff training. Papers should not exceed 10 pages in length with one-inch margins, conform to MLA standards, and should be submitted as a Word Document attached to an email that includes author contact information. Photos and other graphics should be submitted as either jpeg or tiff files. Authors should also submit a one-paragraph biography to accompany submission.

Author abstract deadline is set for **1 July 2005** with a final paper submission deadline set for **30 September 2005**. Publication is planned for 2006.

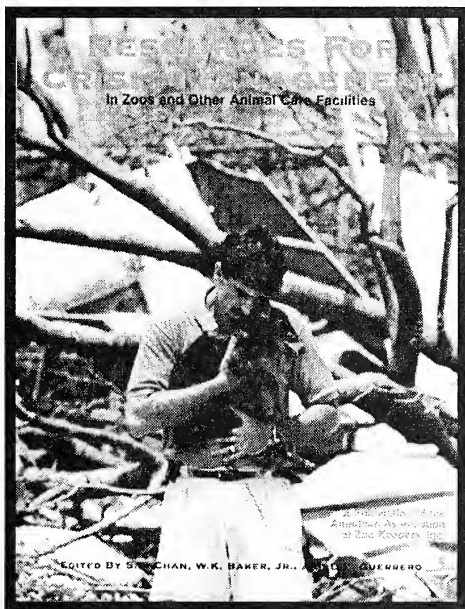
For more information, please contact:

Susan Chan, Senior Editor:
akfeditor@zk.kscoxmail.com

or

Bill Baker, Associate Editor:
wkbaker@litterock.state.ar.us

The First Volume of the *Resources for Crisis Management in Zoos & Other Animal Care Facilities*, published in 1999 was a bestseller, selling out with copies still being requested. We hope to make Volume II just as useful to animal care professionals. We hope you or your institution will consider submitting an article for this important reference work. We can all learn from crisis situations that have occurred at our own facility, and sharing information may help another facility avoid just such a crisis or, at the very least, be better prepared to handle it. We all benefit from sharing our experiences.



ABC's

ABC's: Animal Behavior Concerns and Solutions

A Question & Answer Forum for Animal Professionals

©2005 by Diana Guerrero, Independent Behavior Consultant
Ark Animals of California, Big Bear Lake, CA



Question (American Zoo) Part One of Two

Our facility has recently encountered animal aggression involving one particular keeper. This is impeding animal training progress. Do you have any suggestions?

Background

Over the past few months this facility has witnessed heightened aggression and uncooperative behavior from a mature male primate that refuses to shift. The animal displays and aggresses at one of the keepers. (The keeper is the same sex as the animal.) Similar displays were present when the male keeper first came onto the string, but were extinguished. Recently the aggression has resurfaced and is escalating.

Discussion

Since the problem has escalated over the past few months I would encourage you to revisit the time period when the animal began to react adversely to his keeper. Changes in behavior are usually contingent upon something—but the critical factor is defining just what that something is so you can devise the most beneficial action plan.

Although many facilities attempt to eliminate variations in training (same whistle pitch, clicker protocol, etc.,) or the techniques used between keepers, animals still differentiate. Over time some creatures will exhibit preferences and unresponsiveness toward individual handlers. However, when the change in behavior is sudden it usually indicates a specific problem.

Causes of aggression can vary. In captive animals this can be complicated. Individual animals may have been hand-reared by humans in a nursery environment and so may relate to caretakers as they would their own species. If this is the case, social influences might be a factor. Social changes in the perceived hierarchy can trigger arousal due to maturation, breeding, or perceived competition or displacement.

Accidental reinforcement can be another contributing factor. For instance, during an act of aggression you may decide to give a time-out to the animal. If you are pulled away from working with that animal, or another trainer interferes and takes over, the animal may perceive the aggression as a way to end undesirable interactions with you. Higher intellect animals require a trainer's undivided attention to detail and procedures to avoid any escalation of problems.

Animal keepers influence behavior through every activity. How you conduct yourself during your routine and training can really make a difference. Remaining calm and consistent are important elements within the training environment. Some animals will react adversely to trainers who raise their voices, while other animals might perceive that exhibition as a challenge.

There are also those animals that get frustrated with training delays such as too much time between reinforcement, inconsistent criterion, unclear directives or sloppy signals. Conversely, if you have a consistent environment and then begin to change it, or change your schedule of reinforcement too quickly, you might encounter resistance and frustration from the animals.

Troubleshooting Questions

Ask (and answer) the following questions:

Stress and Veterinary Medical Related

Has the animal been checked for any veterinary medical problems?

Other than the aggression towards the individual keeper, are there subtle changes in the particular animal's patterns of behavior? Alliances? Exhibit usage?

Was there an incident prior to escalation of the aggressive behavior?

If so, how was the incident handled?

Have there been any dietary changes? Increase or decrease in food consumption?

Have the animal group dynamics changed in any way?

Have there been any conflicts between keepers in the area?

Maturation or Sexually Related

Has this animal hit maturity, or have any other group members entered into estrus or sexual maturity?

Was this animal nursery-reared or habituated to humans at a young age?

Is the recipient of the hostile behavior dating another keeper in the area?

Training Related

Is the negative behavior response contingent on a particular location, procedure, or team of handlers?

Has the keeper staff or scheduling changed in any way?

Could the behavior have been triggered through the training process (frustration, etc.,)?

Is it possible this behavior was accidentally reinforced?

Do training notes reflect any problems?

What changed about the time the animal's aggression resurfaced?

Next Month: Part Two, Strategies & Suggested Reading

Are you a reader with a question? Be sure to submit it—and good luck in all your training endeavors!

About the columnist: Since 1978 Diana L. Guerrero has worked professionally with both wild and domestic animals. Guerrero has been affiliated with and certified by a variety of animal programs in the USA and Europe. Information on her animal career programs, teleseminars and other projects are available through her website www.arkanimals.com. Questions for ABC's should be submitted to Diana by phone at (800) 818-7387, directly through the ABC's questionnaire on her website, via email zooit@arkanimals.com, or through regular mail: c/o ARKANIMALS.COM, PO Box 1989 PMB 215, Big Bear Lake, CA 92315 USA.

Lewa Journal and A Language Lesson

By Patty Pearthree, Coordinator
AAZK's Bowling for Rhinos Program

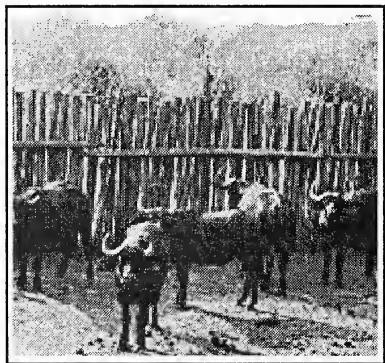
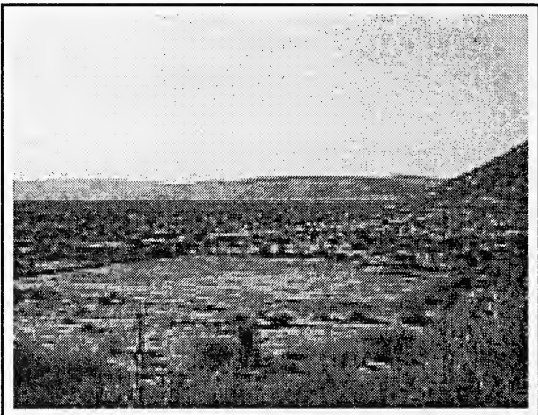
I had always envisioned that Kenya would be wide open grasslands with a few farms scattered in between. Flying from Nairobi to Lewa in 1991 made me realize the opposite was true. It was farmlands as far as you could see with a few patches of wild lands scattered between them. Over the years, Lewa has worked to connect these isolated pockets of wild lands so that animals such as elephant could migrate safely through protected areas - through Wildlife Corridors.

Since the early 1990's, Lewa Wildlife Conservancy (LWC) has facilitated the development of seven community conservation areas which make up roughly 300,000 acres. One such area is Il Ngwesi Group Ranch that I had the opportunity to see developed from just an idea into what it is today: a top-rated destination for the world traveler with luxuries beyond belief! Now these communities also benefit from protecting the wildlife.

The conservation safaris that I voluntarily lead now include two nights at this magnificent lodge.

Il Ngwesi Group Ranch - Il Ngwesi Group ranch is located at northwest edge of the Lewa Wildlife Conservancy and is owned by Il Ngwesi community of the Mukogodo division of Laikipia district. The Maasai people of Il Ngwesi have a long and friendly relationship with Lewa. Many of LWC's staff, including the head of security John Pameri, comes from Il Ngwesi. They have often turned to LWC for support. In recent years we have helped them to move towards financial self-sufficiency through the Il Ngwesi Lodge.

Previously the area remained undeveloped. There was little economic activity except for subsistence pastoralism until the early 1990s. Although there was some wildlife in the area, elephant poaching remained a problem, and elephants tended to move rapidly through Il Ngwesi from the north into the security provided by Lewa. Il Ngwesi is a communally owned Group Ranch. The members have elected a Group Ranch Committee and Chairman to represent over 6,000 people. A general meeting is held once a year to discuss matters including revenue distribution, management policies, registration of new members, and election of a management committee, which carries out day-to-day management for the rest of the year.



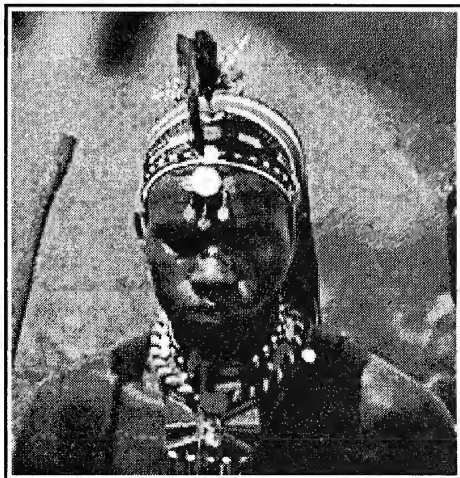
Livestock Management - Originally, the Ngwesi people only kept livestock, which for the last many years in Northern Kenya has been prone to cattle rustling, and were never a guarantee of livelihood. Today a major priority is the planning of seasonal livestock grazing patterns in a way which will ensure an increase in ground cover vegetation and a reduction in the present erosion.

Wildlife - The re-introduction of wildlife from Lewa to Il Ngwesi continues every year including black rhino, waterbuck, white rhino and giraffe. There is now no poaching within the area and wildlife numbers continue

to increase. Omni was born in October 1999. His mother Mawingo is partially blind so for his own survival he had to be hand reared. Omni grew up to become a big strong black rhino male, so it was decided to move him to Il Ngwesi. He walked across on the 11th of March 2002 and has lived there ever since.

Our driver/guides, Daniel & Peter, grew up in these areas and have benefited from AAZK's Bowling For Rhinos through the educational opportunities, health care facilities and job opportunities of LWC. Daniel will have the rare opportunity to visit the U.S. in 2006 to do a presentation at the AAZK Conference on his "Life as a safari guide". This opportunity evolved from AAZK's Bowling For Rhinos support of LWC. Not only have we improved the conservation efforts in E. Kenya, but we have vastly improved the lives of so many in the surrounding communities.

The following is the bits of Kiswahili (native Kenyan language) that I have learned over the course of the last five safaris I had the privilege of leading. I wanted to share this with you in case any of you have the dream of going on safari in Kenya. I'd like to help make your dream come true, so save your pennies and come join one of our trips to Lewa Wildlife Conservancy! (www.lewa.org)

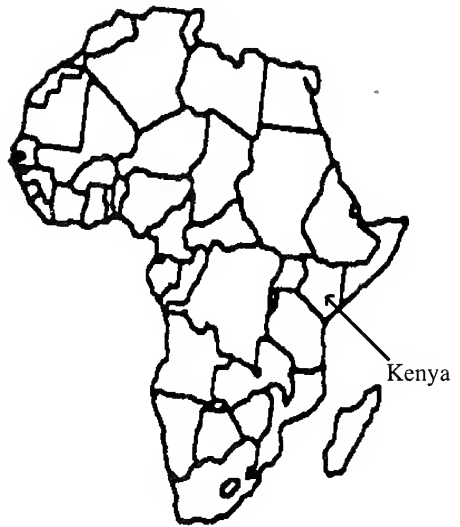


Hello - Jambo
 Friend - Rafiki
 How are you? - Habari?
 Very well - Mazuri sana (sana means very)
 And you? - Na wewe?
 Where are you from? - Unatoka wapi?
 I'm from.... - Natoka....
 Goodbye - Kwaheri
 Thank you - (very much) - Ansante (sana)
 Okay - Sawa sawa
 Please -Tafadhali
 Yes - Ndiyo
 No - hapana
 Right - kulia
 Left - kushoto
 Stop - simama
 Sorry - pole
 Slow - pole pole
 Quickly - haraka
 Good night - lala salama
 Hot - moto
 Spicy - kali
 Cold - baridi
 Big - kubwa
 Small - kidogo
 Open - fungua
 Closed - fungua
 Empty - Tupu

Full - kujaa
 Absolutely - kabisa
 I - mimi
 You - wewe
 There is - kuna
 There is not - hakuna
 No problem - hakunana matata
 I'd like a cold beer -
 Tafadhali nataka beer baridi
 Petrol - Petroli
 Mechanic - fundi
 Coffee - kahawa
 Tea - chai
 With/without - Na/bila
 Milk/sugar - maziwa/sukari
 The food is very good -
 Chukula Mazuri sana
 Tea with sugar - chai na sukari
 Where is the restroom - Wapi Choo?
 Danger - hatari
 Chicken - kuku
 Eggs - Mayi
 Salt/water - chumvi/maji
 Beautiful - mariadant
 Shop - duka
 Money - pesa
 How much - ngapi?
 Now - sasa

What - nini
Where - wapi
Who - nani
Here - hapa
Where are you going? Unakwenda wapi?

When - lini
Which - Ipi
Why - kwa nini?
How do you say? - Unasemaje?



- 1 - moja
- 2 - mbili
- 3 - Tatu
- 4 - Nne
- 5 - Tano
- 6 - Sita
- 7 - Saba
- 8 - Nane
- 9 - Tisa
- 10 - Kumi
- 11 - Kumi na moja
- 20 - Ishirini
- 30 - thelathini
- 40 - arobaini
- 50 - hamsini
- 60 - sitini
- 70 - sabini
- 80 - themanini
- 90 - Tisini
- 100 - mia
- 1000 - Elfu
- 1997 - Elfu moja mia tisa na tisini na saba

Baboon - nyani
Cheetah - duma
Giraffe - Twiga
Impala - swala
Lion - simba
Rhino - kifaru
Zebra - punda milia

Buffalo - nyati
Elephant - ndovu
Hyena - Fisi
Leopard - chui
Vervet - tombili
Warthog - ngiri
Snake - nyoka

I spent the summer at Lewa in 1995 to complete my internship for my Masters in Environmental Science in Wildlife Conservation. I was thrilled at the prospect of coming home speaking fluently in Swahili. Everyone kept speaking English to me because they wanted me to know they were educated and were proud to have mastered the English language. At first, I had to keep asking them to speak Swahili so I could learn. That got old quickly, and I had to rely on picking it up more slowly.

Almost everyone speaks English, Swahili plus at least 2 other languages. We have fabulous food, adventures of hiking, camel riding, game drives and "sundowners". For more info on safaris at Lewa see www.lewasafaricamp.com. You can also call Patty Pearthree at 919-678-0449 or email: ppear3@aazk.org. I'd love to help make your African dream come true!

Photos supplied by the author

REACTIONS

A Question and Answer Forum for the Zoo Professional on Crisis Management



*By William K. Baker, Jr., Curator
Panthera Research, Maumelle, AR*

Question

What type of advance preparations do you recommend for free-contact training work with dangerous animals?

Comments

One of the most challenging aspects of our profession is the management of dangerous animals in captivity. Taking that a step farther with free-contact training definitely raises the bar a notch, not only in terms of safety but success as well. I have always held the belief that free-contact training is highly effective. Conversely, it's extremely dangerous as well. To be sure there are variations of this training style and it is the source of much discussion among peers, still the basic tenant of this style is a constant, you are in direct physical proximity to the animal that you are working.

Having said all of this, the question should be tempered with the comment that every zoological facility and its staff takes a different approach not only to the training aspects of their program, but the physical training of their staff members as well. With these thoughts in mind, I do believe that it is possible to make some general and species-specific recommendations.

General Recommendations

- Staff members who are selected and/or hired as trainers should have a stable temperament, demeanor, and hopefully an affinity for the species they plan to work.
- Trainers and/or handlers should have significant training in the workplace and specifically with the species they are working.
- At all times staff members should work in pairs.
- During training sessions a fellow trainer should act as a back-up.
- The back-up should always be within physical proximity to the primary trainer during sessions, (at least 5 meters).
- Only staff members who are involved in the program management should be granted access to the night house, barn, and/or training area on exhibit during training sessions.
- Only staff members actively involved in managing or training should be provided key access to an Area with dangerous animals.
- Maintenance workers should be accompanied at all times by a member of the staff, specifically one of the trainers in the program.
- When servicing the exhibit and/or night house, trainers should be in line of sight of each other at all times.
- If either the primary trainer or back-up are unavailable or not in top form due to illness, stress, or anything that potentially distracts from the session, it should be delayed or cancelled.
- Training and/or work areas should be well lit.
- All staff members should be equipped with radios.
- A substantial first-responder class first-aid kit should be on hand.

Free-contact for Felids

- Choose your training area carefully with an eye towards reducing distractions such as sharp or high-pitched noises.
- A sign donating "Training session in progress" should be considered a plus when decreasing noise or potential interruption by passersby.
- Utilize a harness if possible as opposed to a leash for walking behaviors. However, large pantherids may not be suitable for harnesses and a heavy duty collar and lead may be the better choice.
- Also, a harness can be an asset in early stages of training. The earlier an introduction of harness and lead, the greater the degree of success and as a consequence, the level of control at an older age.
- If possible, I recommend training in a large enclosure to ensure a higher level of safety and negating the need for a lead.
- In the event of an emergency, I recommend using a CO2 fire extinguisher to distract and shift an animal. Additional measures may include air horns and hoses. Pepper spray should be considered as a last resort.

Free-contact for Elephants

- If possible conduct training sessions prior to public entry to your facility, especially when developing new behaviors.
- Elephant trainers and handlers should be well versed in behavior, husbandry, and training. I recommend the AZA Principles of Elephant Management School to provide a background on current techniques.
- An experienced and skilled Elephant Manager is a must.
- Whenever possible attempt to reduce noise levels and activity from heavy equipment near the training area and barn.
- Defined escape routes should be designed into all exhibits. Vertical bollard posts made of steel and filled with concrete are good considerations. Hot-wire or tension wire containment should have a provision for escape routes as well if needed by the staff.
- In the event of an emergency or escape, my best advice is to restrict or control pathways/access that the animal may use. In short, you are trying to contain the animal until behavioral control can be re-established.

In closing, I should add that the greatest single resource that you have in exotic animal management and training, is your mind. Ideally, there should be a plan for the training session prior to ever stepping into the exhibit, you have to think ahead of the animal and project its potential actions.

Next Month: Everyone seems to use a different style of lock at zoos, sanctuaries, and wildlife parks, what do you recommend?

If you would like to submit a question for this column or have comments on previously published materials, please send them to AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614 Attn: Reactions/AKF

(About the Author: Since 1985 Bill has been active in the fields of science, zoology, and wildlife management. His education and experience include a B.S. in wildlife management and post-graduate studies in zoology, Lab and Museum Assistant, Shoot Team Leader, ERT Member, Large Mammal Keeper, Senior Keeper, and Zoo Curator at various zoological facilities. His area of research is crisis management in zoological institutions, which draws upon practical experience and training as a Rescue Diver, Hunter Safety Instructor, NRA Firearms Instructor, and Red Cross CPR/First Aid Instructor.)

Creating and Maintaining a Bachelor Group of Gorillas at Louisville Zoo's Gorilla Forest

By Roby Elsner, Gorilla Forest Supervisor,
Louisville Zoo, Louisville, KY

Tremendous advancements in the care and management of captive western lowland gorillas (*Gorilla gorilla gorilla*) have been made over the past 25 years. Many of today's zoos strive to house their gorillas in complex, spacious, and natural exhibits, as well as provide them with adequate mental stimulation, nutrition, and veterinary care. Another important aspect of modern gorilla programs is the provision of appropriate social stimulation. A better understanding of the social structure of wild gorillas has encouraged zoos to maintain gorillas in species-typical groups.

As a polygynous species, wild gorillas most typically live in long-term, established social units comprised of a leading silverback, several adult females, and their immature offspring. Groups vary in size from two to 20 individuals. Before breeding, females transfer to other social groups or reside with solitary silverbacks. Maturing male gorillas, or blackbacks (yet to develop the characteristic silverback graying), leave their natal groups as well, living solitarily or occasionally in all-male groups – known as bachelor groups — until being able to create cohesive family units of their own (Parnell, 2002).

Maintaining gorillas in social groups similar to that of their wild counterparts and employing other methods to improve the captive environment have led to improvements in reproductive success. In the 1970's, captive gorilla births were uncommon and a majority of the infants born were pulled for hand-rearing. Not only has breeding success increased since then, but more females now demonstrate maternal competence. Many of them were raised in or introduced to social groups themselves, in the hopes that that they would raise their offspring successfully within their own groups. For females that need some assistance raising their offspring, some zoos have developed training programs to foster maternal care. Sometimes because of health or social constraints, hand-raising is unavoidable. In these instances, some zoos have implemented surrogacy programs, where adoptive gorillas provide care-giving behaviors to the infants and help them integrate successfully into social groups at a young age. Hand-raised females integrated into social groups at a young age have a likely better chance of demonstrating species-typical breeding behavior and exhibiting adequate maternal skills toward any potential offspring (Beck and Power, 1988; Ryan et al., 2002).

Captive gorilla population management has become increasingly important with the growing number of births, especially considering that the birth ratio for this polygynous species is non-sex biased. Approximately 50% of gorillas born in captivity are females and 50% males. With the same number of male and females born in captivity, maintaining gorillas in species-typical groups means that some males will inevitably be without female social partners.

As young male gorillas of the wild mature within their natal groups, they signify potential competition for the leading silverbacks, who become less tolerant of the blackbacks. At this point the young males would likely leave their natal groups to live a portion of their lives outside mixed-sex social groups. Captive blackbacks within family units often become less tolerated by the silverbacks as well, resulting in possible aggression. Borrowing the example from the wild several years ago, the American Zoo & Aquarium Association's Gorilla Species Survival Plan (SSP®) Management Group suggested the formation of all-male groups, or bachelor groups, within zoos to address the needs of the captive gorilla population (Hutchins et al., 2001). Through various methods with males of varying ages and numbers, several zoos have successfully formed bachelor groups of males and continue to maintain them as such. In forming these groups, zoos tried combining males of adult ages, one or more males of an adult age with one or more juvenile males, or all juvenile males. While the first

strategy failed, the second and third have worked (Stoinski et al., 2004b). St Louis Zoo formed a bachelor troop in 1990, Cleveland created one in 1994, and Zoo Atlanta followed in 1996. Other zoos with bachelor groups include Birmingham Zoo, Disney's Animal Kingdom, Henry Doorly Zoo, Kansas City Zoo, Knoxville Zoo, Louisville Zoo, Memphis Zoo, Riverbanks Zoo, Santa Barbara Zoo, Sedgwick County Zoo, and St Paul's Como Zoo. Several other zoos have future plans to construct gorilla exhibits that will house all-male groups.

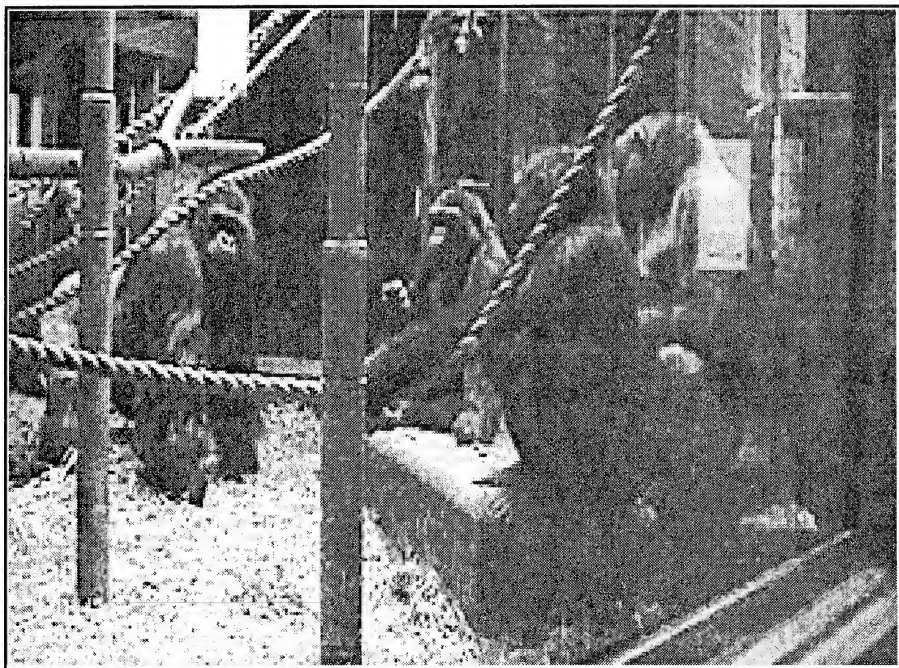
There is still much to be learned about the requirements necessary to successfully form and maintain potentially long-term, stable groups of all-male gorillas. Just as much has been learned from field and zoo research and applied toward improving the environment of captive gorillas, much ongoing research has focused on all-male groups in zoos and findings are anticipated to apply toward the successful management of bachelors. This research examines all-male gorilla groups from a variety of perspectives, including behavior, physiology, personality, and exhibit design. Responsible for a multi-year inter-institutional study on captive male gorillas have been Zoo Atlanta's Tara Stoinski, Cleveland Metroparks Zoo's Kristen Lukas, and Disney's Animal Kingdom's Chris Kuhar. Currently, 14 zoos participate in the study by collecting behavioral data on their gorillas. Data are collected from males of all-male groups as well as those in mixed-sex groupings. These institutions, plus a number of additional zoos, also assist in the collection of physiological data for the study by collecting urine samples from males (Stoinski, personal communication; Stoinski et al., 2004a; Stoinski et al., 2002).

With the growing number of captive gorilla births and number of males in the current population, more bachelor groups will need to be created and maintained in the future (Faust et al., 2001). The Gorilla SSP® strongly encourages zoos to house bachelor groups when possible.

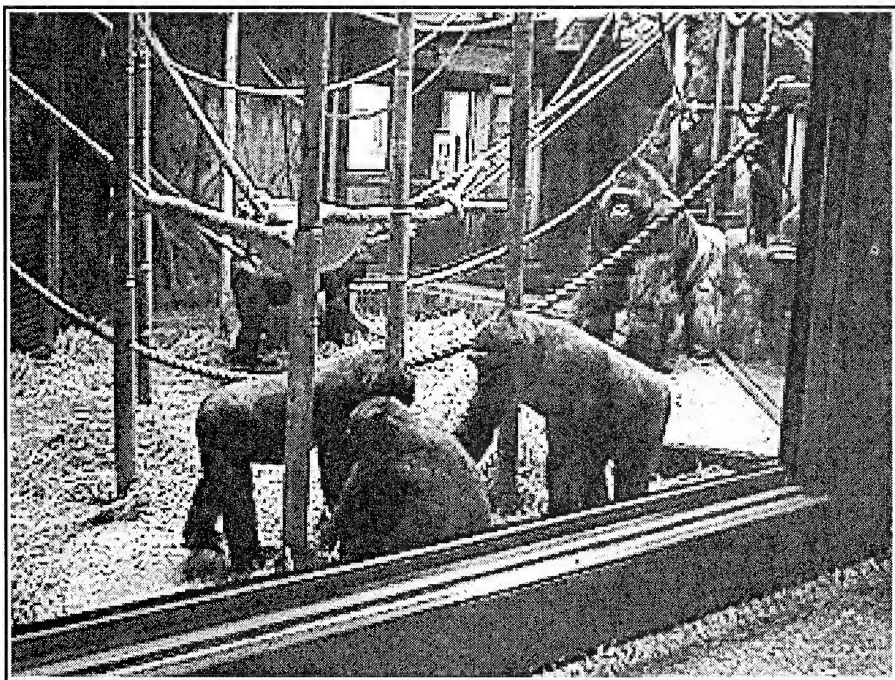
In playing its part to help the captive gorilla population, Louisville Zoo accepted the responsibility of trying to successfully form and maintain a bachelor group of gorillas. In determining how to do so, research (Stoinski et al., 2004b) suggested that:

- Genetically well-represented males should be slated for bachelor groups.
- Introducing males at 4-6 years of age likely facilitates the development of affiliative relationships for long-term compatibility.
- Introducing males when they are immature to a silverback may have substantial long-term benefits.
- Housing these males within family groups during their formative years before forming all-male groups of their own more closely approaches species-typical norms and exposes the males to the social complexities that a larger mixed-sex group offers.
- Hand-rearing negatively affects a male's chances of succeeding in a bachelor group.
- Facility design, husbandry methods, and personality assessment are important factors in managing all-male groups for success.

To accommodate the construction of its new African ape facility, Lincoln Park Zoo in 2002 loaned to Louisville Zoo 12 gorillas for the latter's newly constructed Gorilla Forest. Until Debbie's death in August 2003, the social composition of the gorillas consisted of a social unit of five (JoJo and adult females Makari, Bahati, Tabibu, and Madini — with the subsequent birth of infant male Azizi in December 2003), a social unit of six (Frank, Debbie, Jelani, Bengati, Rollie, and Mumbali), and solitary-but-content older female Helen (who historically clashed socially with silverbacks with whom she resided).



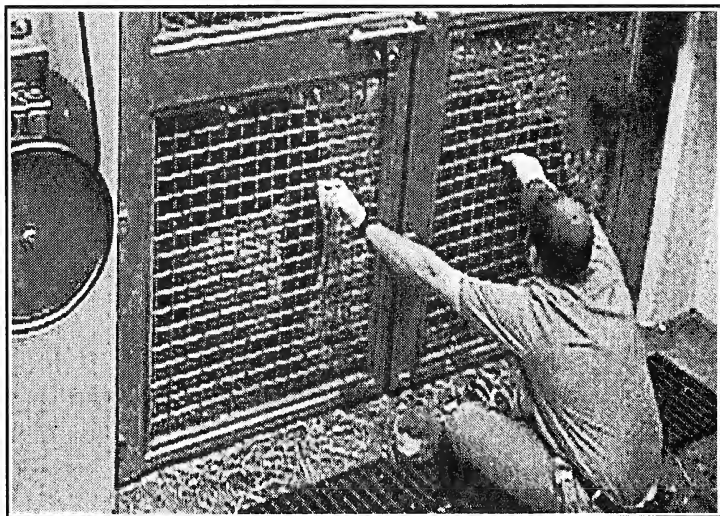
Incorporated on a daily basis, exhibit rotation is an important component of the gorillas' comprehensive management program. Here, following a rotation, all of the bachelors inhabit one of the three indoor dayrooms.





Other important aspects of the bachelor gorilla program include daily enrichment and training for separation, body presentation, and prosocial behaviors

*All photos provided
by the author.*



FRANK'S TROOP	
<i>Name</i>	<i>Date of birth</i>
1.0 Frank*	1964
0.1 Debbie*	1966
0.1 Rollie	October 3, 1996
1.0 Jelani	January 6, 1997
0.1 Mumbali	December 7, 1997
1.0 Bengati	June 1, 1998

JOJO'S TROOP	
<i>Name</i>	<i>Date of birth</i>
1.0 JoJo	April 30, 1980
0.1 Makari	July 12, 1987
0.1 Bahati	September 20, 1990
0.1 Tabibu	April 30, 1992
0.1 Madini	June 20, 1996
1.0 Azizi	December 4, 2003

Solitary Helen*, born 1958

* birth dates for wild caught gorillas are estimated

Social composition of Louisville Zoo gorillas in 2002/2003

Young, mother-raised, and genetically well-represented, Jelani and Bengati represented good candidates for placement into a bachelor group. Very paternal toward these two males, Frank historically surrogated other youngsters in his group as well. In addition to his proven paternalistic surrogacy skills, Frank's high level of understanding in the gorilla personality test (that scored higher than the population mean and defined by Gold and Maple, 1994, as responding to group members in a peaceful and appropriate manner, offering a secure base, preventing harm to group members) deemed him likely an ideal candidate for accepting one to two additional young males for the eventual formation of an all-male group (Stoinski, personal communication; Stoinski et al., 2004b). Males integrated into this group would also be exposed to the "family" elements that females Debbie, Rollie, and Mumbali provided. Unfortunately, Debbie's death was untimely, and she was unable to apply her proven surrogacy skills to likely help integrate the chosen males into the group. However, many attributes of this group still constituted a family group, albeit not a typical one. Rollie and Mumbali showed no signs of separation anxiety from Debbie, and they continued to demonstrate many prosocial behaviors within Frank's group. The friendly behavior was often reciprocated from the males. Additionally, Frank was paternal toward and very tolerant of the females. Until their return with JoJo's group to Lincoln Park Zoo's newly constructed gorilla facility, Louisville Zoo gorilla keeper and management staff felt that Rollie and Mumbali should remain in their current group to provide what social contributions they could in that brief time. They, too, were thought to likely benefit from the males' presence and learn skills valuable to gorilla introductions.

Louisville Zoo collaborated with the Gorilla SSP® and Lincoln Park Zoo to research the availability of two mother-raised gorillas of similar age to Jelani and Bengati that resided in a North American zoo. Ideally, these gorillas would also be genetically well-represented. It took little time to find the ideal candidates, Cincinnati Zoo's Kicho (born March 1997) and Cecil (born November 1998). Both mother-raised and well-socialized within the same group, they were similarly aged to Jelani and Bengati and genetically well-represented. Additionally, because Kicho and Cecil had been exhibiting reproductive behaviors toward females of their natal group, Cincinnati Zoo hoped to soon relocate them to another zoo. Rapid and cooperative communication between Cincinnati Zoo and Louisville Zoo (and owning institution Philadelphia Zoo), as well as timely authorization from the Gorilla SSP®, resulted in the transfer of the Cincinnati Zoo bachelors at the end of January 2004, only a couple of months after the candidates were identified.

Adhering to zoo policy, Kicho and Cecil spent approximately one month in quarantine. In working with them during that time, their personalities hinted to staff that Louisville Zoo indeed received the ideal pair of males to introduce to Frank, Jelani, and Bengati.

In addition to five males whose personalities were expected to mesh well, the design of the facility

- with its high degree of flexibility, spaciousness, complexity, and accessibility of staff to gorillas - was deemed facilitative to successfully introduce and maintain an all-male group of gorillas. Gaining skills as gorilla keepers over two years, Gorilla Forest animal staff had proven proficient in marrying facility design with behavioral management in the daily husbandry of the gorillas. The program had triumphantly incorporated with the gorillas daily rotation throughout their spaces, training for flexibility (in shifting and separating, something very advantageous during an introduction) and prosocial behaviors, the granting of control and the ability to make choices as much as possible, and other aspects of a comprehensive enrichment program.

Upon their release from quarantine, Kicho and Cecil spent the next few weeks gradually becoming familiarized with the gorilla facility and its husbandry program. Part of this process comprised howdying the males to Frank's group, where the pair was provided visual, olfactory, and (limited) tactile access to those gorillas. Based on behaviors that animal staff observed during the howdying process, Kicho and Cecil were gradually introduced to juveniles of Frank's group in various and progressive selected combinations. Once staff was confident the juveniles had bonded well enough to introduce Frank to Kicho and Cecil, all of the juveniles were placed with the silverback, and all 5.2 gorillas resided as an entire group (24 hours/day) after that. Frank initially directed periodic bouts of aggression toward Kicho, and Rollie and Jelani occasionally bullied him as well. Bengati bonded extremely well with the new males, while Mumbali demonstrated slight interest in them.

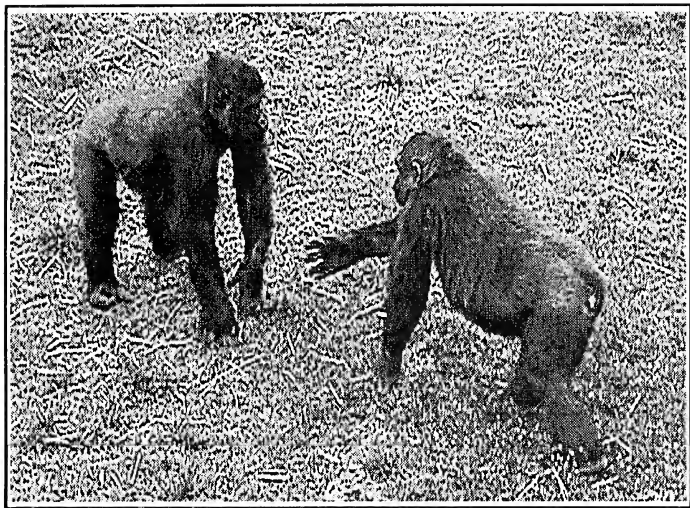
Upon the May 2004 departure of Rollie and Mumbali to accompany JoJo's gorillas to Chicago and eventually integrate into that group, Frank's bachelor group bonded well, with the silverback acting as patriarchal leader of the group. Prosocial behavior has proven ubiquitous, including much play among the four youngsters. Aggression occasionally erupts among the juveniles, but Frank's approach at any of these instances ceases the agonistic behavior. Some sociosexual behavior has been observed as well.

The gorillas move readily as a group when asked to shift for daily exhibit rotation, and all members of the group have been trained to cooperatively isolate from each other twice a day during shifting sessions conducted in the holding area. Following the temporary isolation process, each bachelor is trained to present body parts and other aspects typical of one-on-one training. Cooperative feeding sessions are also conducted, where the group remains intact while every gorilla gets handfed and tolerates the feeding of the other bachelors.

Prior to, during, and after the creation of Louisville Zoo's all-male group, Gorilla Forest staff has participated in the collection of behavioral data and urine samples for the aforementioned inter-institutional study on the behavior of males in cosexual and bachelor groups in captivity.

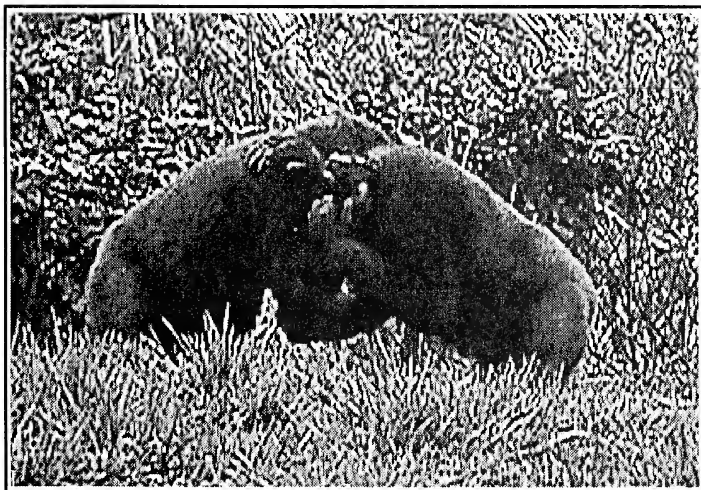
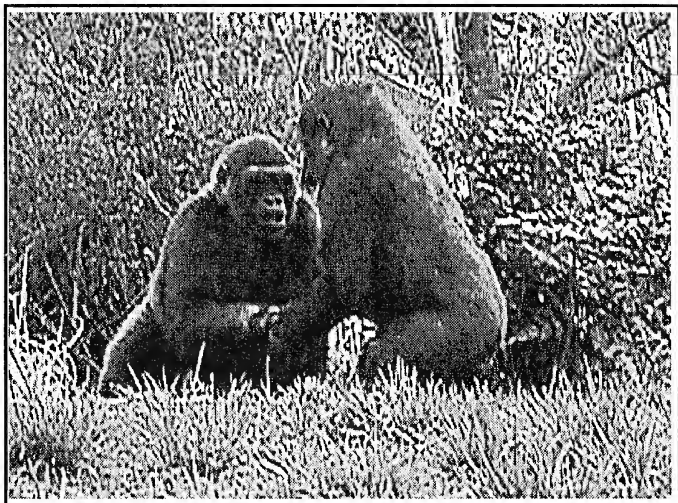
In playing its part to assist the captive gorilla population, and in observing success thus far with Frank, Jelani, Bengati, Kicho, and Cecil, Louisville Zoo Gorilla Forest staff is confident and determined to ensure success in continuing to maintain a successful, long-term bachelor group of gorillas.

Success is also envisioned for the family group of gorillas that replaced JoJo's group. Immediately following the return of those gorillas to Lincoln Park Zoo, Bronx Zoo transferred Timmy and adult females Tunuka and Paki to Louisville Zoo. Helen has since been successfully introduced to this group, particularly because Timmy represents an exceptionally mellow silverback.



Soliciting play behavior

Play behavior among the juveniles of Frank's bachelor group occurs frequently.



All photos provided by the author.

FRANK'S TROOP	
<i>Name</i>	<i>Date of birth</i>
Frank*	1964
Jelani	January 6, 1997
Kicho	March 25, 1997
Bengati	June 1, 1998
Cecil	November 3, 1998

GROUP	
<i>Name</i>	<i>Date of birth</i>
Timmy*	1959
Helen*	1958
Tunuka*	1963
Paki	May 26, 1989

Current social composition of Louisville Zoo gorillas as of 2004

Acknowledgments

I would like to thank: 1) Members of my current team for their fortitude in embracing the concept of the current gorilla program and their perseverance in making the workplace fun 2) My current and past Louisville Zoo bosses for allowing great freedom and calculated risk-taking in gorilla behavioral management and collection planning 3) Jane Anne Franklin for her involvement as training consultant (and brave acceptance of the role of Paki's primary trainer) 4) Other Louisville Zoo employees who have been continually supportive of the gorilla program 5) Gorilla care staff colleagues (there are a lot of you!) who have influenced me by teaching me so much and continually making me remember that the passion is truly what keeps us here 6) Bronx Zoo, Cincinnati Zoo, Lincoln Park Zoo, and Philadelphia Zoo for the gorillas they have housed at Louisville Zoo, whether temporarily or permanently 7) Tara Stoinski for her role in the development of this paper and continual source of inspiration for "big picture" gorilla issues 8) And very importantly, all of the gorillas with whom I have worked.

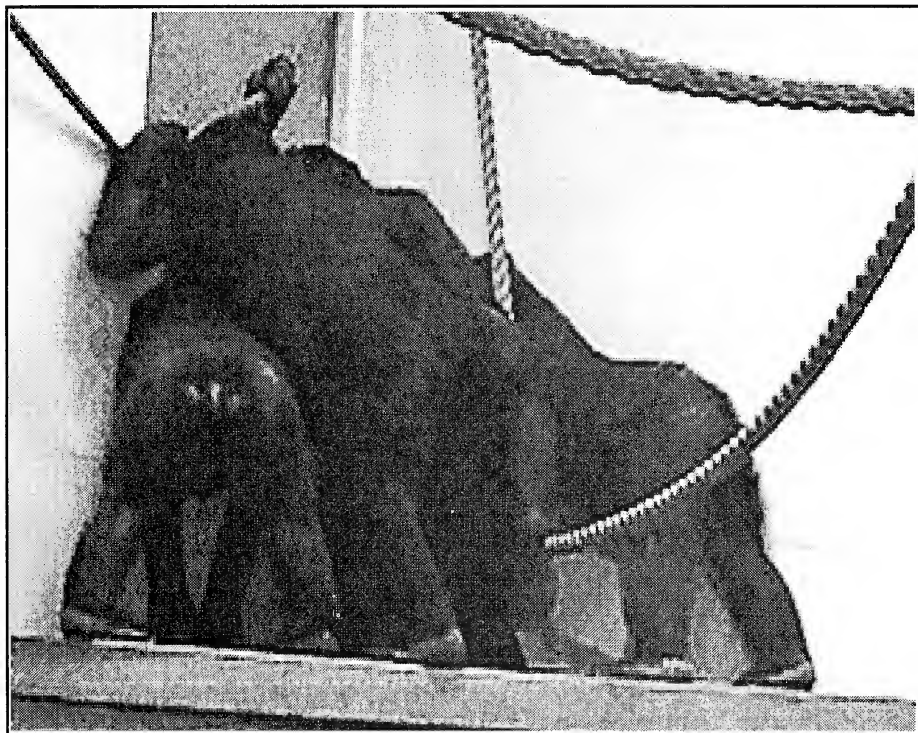
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During the howdy process, all of the juveniles of Frank's group showed a great interest in the new arrivals from the Cincinnati Zoo. Here, these four youngsters are glued to one of the facility's howdy panels excitedly investigating next-door neighbors Kicho and Cecil.

Wild Cat Conservation Education in Thailand

By Karen Povey
Senior Staff Biologist, Point Defiance Zoo & Aquarium
Clouded Leopard SSP® Education Advisor

Wildlife conservation is almost always a highly collaborative endeavor, born through and sustained by the efforts of a wide variety of partners. One example of such an effort is the work undertaken on behalf of clouded leopard (*Neofelis nebulosa*) conservation. Through the support and participation of numerous partners including zoos in North America and Thailand, the Clouded Leopard Species Survival Plan®, the Point Defiance Zoo & Aquarium's Clouded Leopard Project, and the American Association of Zoo Keepers, conservation efforts for clouded leopards have flourished in the last several years.

The combined efforts of these far-flung partners have created a multi-faceted clouded leopard conservation program, with a strong range country component based in Thailand. Spearheaded by the Smithsonian National Zoological Park and the Nashville Zoo at Grassmere, this program includes *in situ* and *ex situ* conservation strategies, as well as in-country capacity building (Riger, 2003). The project has a growing public education element as well, thanks in part to support from AAZK's Conservation, Preservation, and Restoration (CPR) Grant. This grant provided funding for Point Defiance Zoo & Aquarium's (PDZA) Southeast Asia Wild Cat Education Initiative, begun in 2004. This initiative provides education materials that lend support to the clouded leopard conservation program currently underway in Thailand.

Public education is an important component of the strategy for conserving Thailand's clouded leopards and other wild cats. Thailand is home to nine species of wild cats: the Indo-Chinese tiger (*Panthera tigris corbetti*), leopard (*Panthera pardus*), clouded leopard, fishing cat (*Prionailurus viverrinus*), leopard cat (*Prionailurus bengalensis*), jungle cat (*Felis chaus*), golden cat (*Catopuma temminckii*), flat-headed cat (*Prionailurus planiceps*), and marbled cat (*Pardofelis marmorata*). Many of these species are threatened or endangered due to the many environmental challenges threatening the region. Illegal subsistence and commercial hunting are considerable threats to wildlife; logging and out-of-control agricultural fires also cause extensive habitat damage on a regular basis, even in protected areas.

One protected area, Khao Yai National Park (Figures 1 & 2), is the focus of PDZA's Wild Cat Initiative. Because this park is the site of field research being conducted by scientists from the Smithsonian Institution and its conservation partner, WildAid Thailand, PDZA decided to apply its wild cat education program to the communities bordering the park. WildAid already conducts a variety of community outreach programs in the region to encourage people to adopt sustainable development practices that will protect the forest while providing economic benefits to the local communities.

These outreach efforts will be supported by PDZA's Southeast Asia Wild Cat Education Initiative, a multi-phase project that will be implemented over several years. The first phase, currently nearing completion, is the development of a Thai-language wild cat teachers' guide. (Figure 3) This guide will be disseminated by WildAid educators to teachers in the communities bordering the park. The materials and activities in the guide relate to the biodiversity of the region, with emphasis on wild cat species. One prominent emphasis of the guide is the role that science plays in wild cat conservation. This message connects directly to the field work taking place in the park with the goal of helping residents learn about and become interested in the project as well as wildlife conservation in general.



Figure 1 - Wild cat habitat, Khao Yai National Park, Thailand



Figure 2 - Trail sign, Khao Yai National Park, Thailand

Project assessment indicates that the development of the teachers' guide will prove timely for Thai educators. Currently, the Thai school system is undergoing a reform that includes the adoption of new national standards, including the incorporation of environmental education as a required element in the curriculum for all students. Teachers and school administrators are still learning how to apply this requirement to their existing curricula or design new units of study for their classrooms. As a result, there is a great need for training and classroom materials relating to environmental education.

The second phase of the initiative will be the development of bilingual (Thai/English) storybooks for use by students in the region's schools. Again, these books will emphasize the role of park rangers and scientists as they use the tools of conservation (camera traps, GPS, etc.) to study and protect wildlife. The first of these books will be completed in late 2005

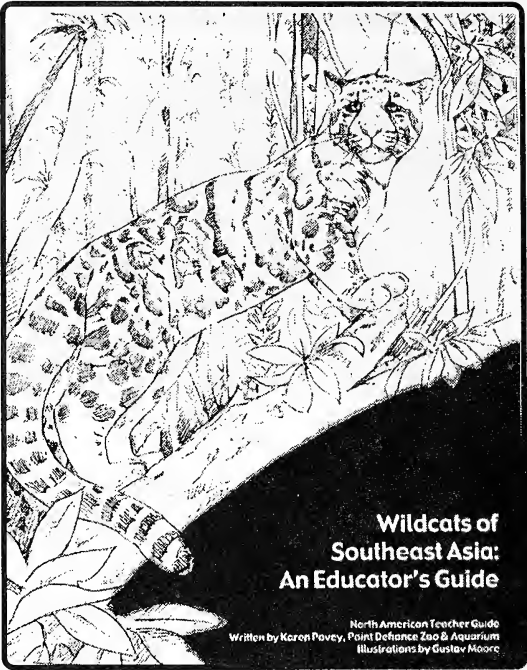


Figure 13- Wildcat teacher's guide cover (actual cover is in full color)

The materials developed for this *in situ* education project will also be provided to Thai zoo educators working with student groups visiting their facilities. PDZA has already forged a partnership with the education staff at Khao Kheow Open Zoo, the site of a clouded leopard breeding project developed as part of the comprehensive conservation strategy mentioned above. The zoo uses a clouded leopard costume (Figure 4), funded by the CPR grant, for classes and public festivals.

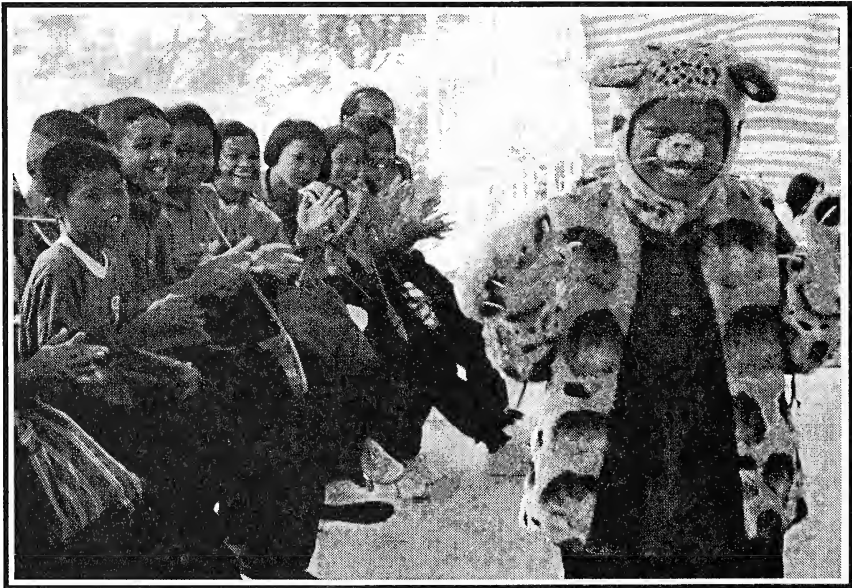


Figure 4 - Students learning about clouded leopard biology and behavior at Khoa Kheow Open Zoo, Thailand, August 2003.

Hopefully, this education effort in Thailand's zoos and rural communities will be able to play a small part in raising awareness about the plight of the endangered wild cats of the region. Saving the clouded leopard and the other cats of Southeast Asia will require cooperative efforts between wildlife managers, researchers, zoos, and concerned individuals everywhere. Hopefully, by working together, we can all help to provide a secure future for these amazing animals.

Point Defiance Zoo & Aquarium gratefully acknowledges AAZK's support as one of the partners in this important conservation effort. We'd also like to thank the local Point Defiance AAZK Chapter and the Point Defiance Zoo Society for their unflagging support of The Clouded Leopard Project, as well as its network of donors and supporters over the last few years. For more information on any of the work taking place on behalf of clouded leopard conservation or to make a contribution to the project, visit The Clouded Leopard Project website at www.cloudedleopard.org.

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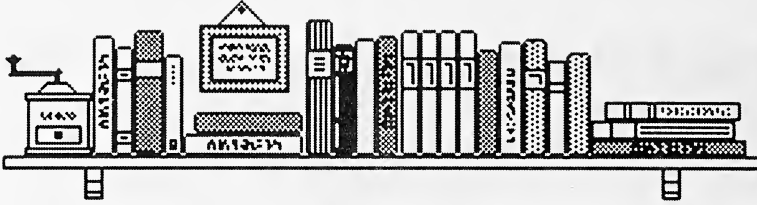
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Book Reviews

The Encyclopedia of Deer: Your Guide to the World's Deer Species, Including Whitetails, Mule Deer, Caribou, Elk, Moose, and More

Text and Photography by Dr. Leonard Le Rue III ©2003

ISBN 0-89658-8590-5

Voyageur Press, Inc., 123 North Second St., Stillwater, MN 55082

Hardback 160 pgs. \$35.00

*Review by Shea Cogswell
Topeka, Kansas*

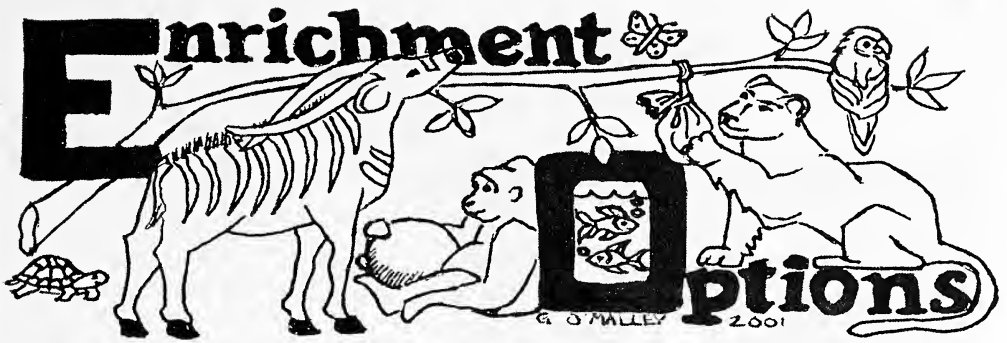
The author and photographer, Dr. Leonard LeeRue III, has studied wildlife for most of his life and here is another exciting book to add to his already lengthy published collection. The one-hundred and sixty pages of this reference book is full of interesting information, vivid photography and simple illustrations to aid in learning about many different kinds of deer.

The *Encyclopedia of Deer* would be a good reference to other resources for those interested in researching deer. The book begins with a few photographs taken by the author that really sets the stage for the variety of deer that are discussed. The table of contents is followed by the introduction. The introduction has general background information about deer, including genetics, scientific names and how to best use the book to find the information that is needed. The introduction doesn't quite flow as well as it could and seems to be a little disorganized. However, it contains very interesting and useful information. The photographs with captions help to share additional information that isn't mentioned in the text. The close-up pictures of the hooves of deer are particularly interesting and I enjoyed examining the differences of the albino and mutant deer. The introduction ends with a listing of the deer species, including their scientific names, as well as other names the animals might be listed under (such as regional names). This list is in the same order as the table of contents and helps to locate specific deer in the book.

Each chapter follows the same format beginning with the name of the deer followed by a small paragraph of general information about that animal. The rest of the sections are listed as follows: range, description, habits, communication, breeding, birth and young, enemies, and relationships with humans. The information given is broad (with very interesting and unusual facts), but the author shares it in a compact and easy-to-read way. Interwoven between the sections of each chapter are wonderful and educational color photographs. Most of the photos in the book were taken by the author. The photographs and captions are very good in supporting the contents of the text and are excellent in giving additional information to the reader. Most of the chapters include map illustrations with colors drawn in to show the area of the animal's range.

The last part of the book is the glossary. It is a great addition for help in learning the terminology in the book with which the reader may not be familiar. It also contains color photographs to help explain information given in the text. The bibliography, index and a page regarding the author's credentials completes *The Encyclopedia of Deer*.

Again, the book would be an interesting addition to other resources for learning about deer. Some areas of the book could be reorganized to read and clarify the information a little better. The coverage of such a large variety of deer in this book would thrill a beginning researcher or a teenager or adult who is just becoming interested in learning more about the deer family.



*EO Editors - Dawn Neptune, Utah's Hogle Zoo
and Rachel Cantrell, Disney's Animal Kingdom*

How Training Can Enhance Enrichment

*submitted by Elsa Mark, Keeper
The Philadelphia Zoo, Philadelphia, PA*

Enrichment. Sounds easy, right? In many cases it can be pretty simple. Many of our zoo animals accept, investigate and manipulate the new and exciting enrichment items we place in their enclosure in a relatively short amount of time. And it does just what the name implies- it enriches their lives by giving them something interesting to do, enhancing their health both mentally and physically.

But how do you add enrichment items to the enclosure of a group of high strung, easily stressed animals that jump at the slightest movement of a piece of cage furniture and the daily presence of even their keeper?

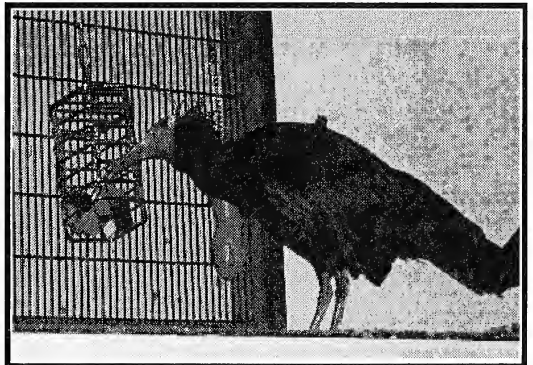
Well, as we have discovered at the Philadelphia Zoo, the first step toward enriching the lives of some of our more high strung charges is to start training them.

The Philadelphia Zoo started a comprehensive positive reinforcement training program in our avian department in 2002. Some amazing bonuses have come to light in addition to the ease of teaching our birds to step onto scales and crate voluntarily.

One of our most easily stressed group of birds were our group of 6.8 Waldrapps ibis (*Corvus silvaticus*). I say, were. Now this group of birds barely moves off of a perch or acknowledges a keeper entering their enclosure - a far cry from the days prior to training when the birds would fly off in fear and remain as far from the keeper as possible.

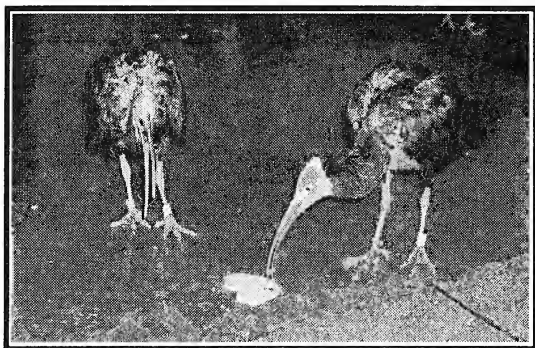
The Waldrapps were habituated to the presence of the keeper and learned to hand-feed. This opened up a world of possibilities not only for training the birds but other welcome changes to their environment.

Bottom line, they relaxed in our presence, which for the first time gave us an opportunity to start changing things in the exhibit and adding actual enrichment items to their environment. The items may be as simple as boxes with holes in them to forage for bugs or pumpkins filled with yummy invertebrates. But these birds actually argue over getting to them first and use the items until they literally fall apart!



Once the birds were habituated to these new items, a very amazing thing was also noticed within the

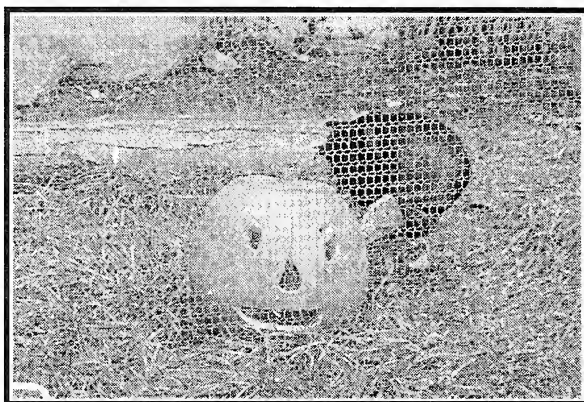
group- they started to play! When play behavior was noticed in the group, we started adding actual toys to the exhibit. The toys are used daily by different birds in the group. The most used toys seem to be the flat foam children's tub shapes (from the dollar store) which the birds carry and manipulate



with their long probing beaks, often spending long intervals of time pushing them into crevices or dropping and retrieving them (often onto the keepers head during cleaning). We also added a few parrot-type toys and PVC pipe toys that enable the birds to use their beaks to probe and manipulate wood blocks or pieces of leather. These toys can also be filled with bugs and the birds will probe for the treats.

Now the possibilities for adding enrichment to their exhibit, and in effect, enriching the

lives of these birds is endless. The training itself was enriching, as it lowered the stress levels of the birds and enabled us to monitor their health much more effectively through logging daily weights and individual diet intake. In addition, we can now change the exhibit periodically, add forage items and toys and watch as a group of formally nervous birds actually explore all the areas of their exhibit, looking for the next new toy or surprise we have left for them. They are now much more active than ever before and are rarely seen sitting like perch potatoes. How enriching!



Leather Elves Enrichment Device Contest



Attention all AAZK members, it's time to put your thinking caps on. The AAZK Enrichment Committee and The Leather Elves are happy to be sponsoring the 3rd Annual Enrichment Device Design Contest. If you've got an idea for a device that's just taking up space in your brain, or if you have built something that has worked particularly well with your animals, share it with the world. Entries will be judged on safety, innovation and affordability. Keep in mind The Leather Elves do not weld, and they do not use materials such as sheet metal. The winning device will be named after you, built by The Leather Elves, and a portion of the proceeds for each sale will go to AAZK. Please send a written description and a diagram or drawing of your idea (don't worry - you do not need to be a professional artist!!) to:

Robin Shewokis/ The Leather Elves
43 Mutton Lane
Weymouth, MA 02189

Entries must be received **by 30 April 30 2005**. The winning design will be announced at the AAZK National Conference in New Orleans, LA and highlighted in a subsequent issue of the *Animal Keepers' Forum*.

Enrichment Excellence- Let Someone Shine!

Have you been impressed with an initiative that an individual or group has developed to better enrich their animals? Has an individual or group **you** know, developed an activity for a species in their care that has brought forth breathtaking natural behavior? Do you know an individual or group that has spearheaded a dynamic program helping their department move forward with sustainable, accountable, zoo-wide enrichment? Has this individual or group inspired you through their dedication to enrichment for captive wildlife? If so, you can let them and their colleagues know just how much their hard work is appreciated through the Lee Houts Enrichment Excellence Award. Information and criteria for nominations appeared in the February 2005 issue of *AKF*, but start thinking now of that special person or group who you think may be an Enrichment Hero! **Deadline for nominations is 1 June 2005.** Award recipients and their work will be featured in an issue of the *Animal Keepers' Forum*.

(Ideas appearing in this column have not necessarily been tested by the editors for safety considerations. Always think ahead and use good judgement when trying new ideas. You are invited to submit materials for the Enrichment Options Column. This might include recipes, toys, puzzle feeders, olfactory enrichment ideas, etc. Drawings and photos of enrichment are encouraged. Send to: AKF/Enrichment, 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054; or email to akfeditor@zk.kscoxmail.com < Eds.)

New Elephant Publication Available “Endangered Elephants - past present and future”

The Proceedings of the International Symposium on Human-Elephant Relationships and Conflicts held in Sri Lanka in September 2003, are now available as a book entitled “Endangered Elephants - past present and future”. This hard back book contains the papers presented at this symposium by the world's leading elephant authorities on topics ranging from captive elephant management, elephant genetics, conservation, biology, ecology to human-elephant conflict and mitigation. It is well illustrated. Copies of the book are available for sale at US \$25 plus postage. USA/Europe postage \$10. Please contact Jayantha Jayewardene at romalijj@eureka.lk or 615/32 Rajagiriya Gardens, Nawala Road, Rajagiriya, Sri Lanka to purchase a copy.

PayPal® Option Available on AAZK Website

PayPal®, a secure credit card payment system, is now available on the AAZK website to pay for AAZK Memberships (new or renewals).

This payment option is also available for the purchase of any of AAZK's publications that include: 2004 National Conference Proceedings; Enrichment Notebook, 3rd Edition; Zoonotic Diseases, 3rd Edition; and Biological Information on Selected Mammals, 4th Edition.

Also available to purchase using the PayPal® option are cloth patches and enameled lapel pins featuring the new AAZK logo.

So check out the AAZK website at www.aazk.org You can even submit a change of address from the button on the Reminder Board.

Chapter News Notes

California Desert Chapter AAZK

The California Desert Chapter continued its successful lecture series over the winter, with a great turnout for Bill Powers talk on 11 January. Everyone enjoyed Bill's spectacular photographs and hearing about his experiences at the Wolf and Grizzly Discovery Center in West Yellowstone.

On 8 February, we featured Greg Rasmussen of The Painted Dog Society, speaking on African Wild Dog conservation, education and research. Over \$500 was raised to support Greg's research.



Our March speaker in the lecture series was Dale Anderson of Project Survival, Cat Conservation Group. We were so impressed by his presentation at San Diego Natural History Museum (sponsored by San Diego AAZK Chapter), that we had to have him come speak in the desert.

In other Chapter news, our first ever AAZK pancake breakfast was held on 13 February, and raised over \$500. Thank you to all Living Desert staff who helped with the planning and set-up of this successful event.

Finally, our current secretary Nicole Hernandez has decided to leave The Living Desert. Her dedication and enthusiasm were instrumental in making our fledgling Chapter a success. We have appointed Stacey Feige as our secretary pro-temp until we hold regular Chapter elections in the spring.

--Jeremy Konwiser, Chapter President

West Texas AAZK Chapter

Two thousand-four was our most exciting year to date. Our Chapter was involved in many fundraising events.



First, our Chapter was the clean-up crew for our local kennel club dog show, making us a good amount of money for only two days of easy work. Then, we held a birthday party early summer for both of our two-year-old lions, partaking in a carcass feed, keeper talks, raffled off a behind-the-scene tour of their night den, and had refreshments for a donation. Next, we held a silent auction with original art and other items during the zoo's annual "Zoo Serenade" event.

At the end of the summer, we had our version of "Elephant Appreciation Night" where we were able to educate the public with elephant artifacts and information, display how much food our two African elephants consume in a week, and raffled a t-shirt painting by one of our elephants. We followed that event with our annual "Boo at the Zoo" photo booth. Finally, we ended the year with "Christmas with the Critters" where Santa delivered X-mas presents with special treats to most of the animal exhibits and later posed for our photo booth.

Because of our fundraisers, our Chapter donated \$100.00 to the International Elephant Foundation, sent one of our keepers to the National AAZK Conference in Dallas, and paid zoo admission for a special group of teens in a summer program at our local YMCA.

Our Chapter hopes to be more successful in this new year. We have a wide variety of events planned and plan on being more involved in conservation.

New officers for 2005 are:

President....Denise Ibarra
Vice-President....Loren Sobek
Secretary....Stephanie DeGesero
Treasurer....Kate Hatton
Liaison....Denise Ibarra

--Denise Ibarra, President

The Chattanooga Chapter AAZK

The Chattanooga Chapter has a new logo, drawn by Morgan Manning of the Zoo. It is a great representation of our mountains and rivers, as well as the animals we love!

We voted in new officers for this year and they are as follows:

President.....Heather Best
Vice President.....David Hedrick
Treasurer.....Regan Slonecker
Secretary.....Kate Warner



We have a busy year planned with fundraisers, education programs, and projects we want to donate our time to. We will keep everyone informed on how things go!

--Heather Best, President

Nashville Chapter AAZK

The Nashville Chapter of AAZK had a very exciting and productive 2004! We wanted to share our accomplishments and ideas on fundraising to everyone else out there...

Our Junior Zookeeper program continues to be very popular. One weekend a month for eight months, we invite students ages 10-14 to shadow keeper staff for three hours for a nominal fee.

We've had them assist in cleaning, enrichment and diet prep, and have shown them general behind-the-scenes tours. This past year we raised \$1,160 through the program, which we donated to Walden's Puddle, a local wildlife rehabilitation center.

Through our spiral wishing well and donation boxes scattered through the zoo, we were able to donate \$1,192 to the Clouded Leopard Consortium in Thailand. We sold Christmas wreaths and participated in Adopt-a-Highway, picking up trash along a two-mile stretch of road that runs in front of the zoo. We were also able to donate money to the following organizations: Tennessee Greenways, Adopt-a-Hornbill, Highland Sanctuary for Gibbons, Wildlife on Easy Street, and AAZK AO, for general operating.

But our big fundraiser and event this past year was our 1st Annual Animal Art Auction. We had no idea that it would be such a popular event! We had animal artists around the zoo create different paintings with feet, feathers, trunks, fur and scales, and had about half of the paintings professionally matted and framed. The framing was graciously donated by numerous frame shops around Nashville and the surrounding communities. We held our event at a local restaurant. The price of admission also included appetizers, beer and wine. We held our collective breaths as the day arrived, and were blown away by over 200 people in attendance, and over \$5000 dollars raised. We were able to send a check for \$4000 (after our expenses were covered) to the International Elephant Foundation, the organization we had chosen in advance to be the recipient of our event. We are in the midst of planning our 2nd Annual Animal Art Auction, which promises to be bigger and better this year! Proceeds this year will be going towards an on-site woodpecker breeding, research and husbandry facility.

Our grand total of money donated in 2004 was \$7052.00.

For 2005, we have elected to not renew our agreement with the Tennessee Dept. of Transportation in regards to the Adopt-a-Highway program, and have looked at other service projects, including a possible canoe lake clean-up at Longhunter State Park, trail workdays at Radnor Lake, and trash pickup with Tennessee

Greenways. We may also do an astronomy night hike at Radnor Lake. We are looking into setting up a website for our Chapter, and holding bake sales at our various special events. We also will be setting up bat boxes around the zoo property.



Officers for 2005 are:

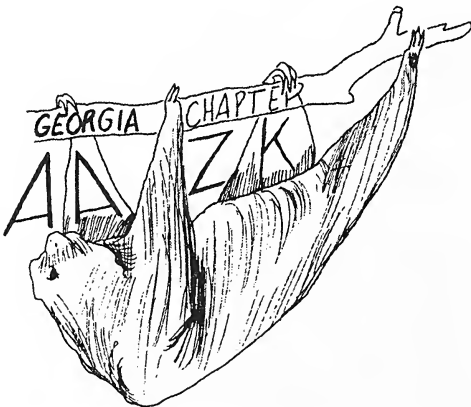
Co-Presidents.....Shelley Norris and
Thaisa Anderson
Vice President.....Shannon McKenzie
Treasurer.....Kate Sproul
Secretary/Liaison.....Tori Mason

We look forward to an eventful and exciting 2005!

--Tori Mason, Secretary/Liaison

Georgia AAZK Chapter

The Georgia AAZK Chapter, formerly the Atlanta AAZK Chapter, has adopted a new logo. Shown below, the logo features a two-toed sloth and was designed by Atlanta Zoo Keeper Daniel Benboe and adopted by the Chapter for 2005.



Detroit Chapter AAZK

We are pleased to announce our newly elected officers for 2005. They are:

President.....Kelly Wilson
Vice President.....Gretchen Friedmann
Treasurer.....Cindy Colling
Secretary.....Marilyn Crowley
Liaison.....Mary Wulff

Our goal this year is to improve awareness about AAZK, our policies, and increasing our membership. Our chapter has been busy all year long devoting time to our various fundraisers. Keepers are always eager and happy to help out during Zoo Boo and our wishing wells continue to flow with change.



In February, Senior Zoo Keeper Marilyn Crowley went to Lincoln Park Zoo (Chicago, IL) to train for a Behavioral/Hormonal study on juvenile male chimpanzees.

Principle Keeper Jessica Jowiak went to Kansas City in March to hold the first Penguin Workshop at the AZA Regional Conference.

On 22 March, our Chapter had a Bowling for Rhinos Kick-Off Party featuring honored guest speaker Sean Hartley from the Lewa Wildlife Conservancy in Kenya. This was a joint effort of four devoted Chapters: Toledo, Cleveland, Columbus, and Detroit. It was a privilege to have Sean here in Detroit and commend him for all of his dedication and hard work.

--Gretchen Friedman, Vice President

CHAPTER LOGOS

Does your Chapter have a new logo? Please keep us up-to-date if you change your Chapter logo. Also, new Chapters are encouraged to send in a copy of their logo as soon as they adopt one. Logos may also be sent as graphic file attachments (tiff or jpeg) to the email address listed below.

We will be producing another Chapter Logo Registry in 2005, so make certain the logo in our file is your most current one. When sending in logos, please include name of the artist/designer, date logo was adopted, and what, if any, significance is in the design - animals represented, etc.

What's your AAZK Chapter been up to? Let us know about your successful fundraisers, guest speakers, conservation projects, new officers, new logos, etc. We want to hear from you!

**Send your Chapter News to the
AKF Editor at:**

akfeditor@zk.kscoxmail.com

Have You Purchased Your Enrichment or Biological Information CD Yet? The 3rd Edition of the Zoonotic Diseases reference work now also in CD Format

Following the release of the Third Edition of the AAZK Enrichment Notebook (CD), review copies were sent to several people so they could give the CD a try and see what they thought. Peter Dickinson, editor of *ZooNews Digest* out of the United Kingdom, had the following to say about this new resource - "I have spent an enjoyable past two days exploring this CD. Over the past few years I have extensively read enrichment papers and books both in paper and web format and this one takes the biscuit. It is the best I have come across so far. Certainly a very worthwhile addition to every zoo library. If you have no enrichment literature then this should be your first purchase. If you have a big enrichment library then this needs to be your next purchase! Buy it!"

Norah Farhnam of the Woodland Park Zoo in Seattle, WA had this to say about the Biological Information CD: "The information included in the CD is fantastic. Even though it may be sparse in some areas, this is presumably because that particular information is unknown/ unavailable for that species. It is, after all, according to the editors, designed to be a "thumbnail sketch of the natural history of a species". The data that is included, however, provides a great deal of information in a clear, concise format. The bookmark feature is extremely convenient. All orders are listed, and double clicking on any order will expand down to families and species, and simultaneously take you directly to the corresponding information page."

Order forms for the Enrichment Notebook CD, the Fourth Edition of the Biological Values Information on Selected Mammals CD and 3rd Edition Zoonotic Diseases, are available at the AAZK website (www.aazk.org). You may order using PayPal® or print out an order form to mail in. All three CDs may also be ordered by phone from Administrative Office using a MasterCard or Visa. Cost for each Enrichment or Bio Info CD is \$25.00 for AAZK members and \$40.00 for nonmembers; Zoonotic Diseases CD is \$9.50 for members and \$12.00 for non-members. Prices include domestic and Canadian shipping. Additional postage for overseas orders may apply. To order by phone call 1-800-242-4519 (US) or 1-800-468-1966 (Canada).

Institutions wishing to advertise employment opportunities are asked to send pertinent data by the 10th of each month to: Opportunity Knocks/AKF, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054. Please include closing date for positions available, and when setting these dates keep in mind that because of bulk-mail, most readers do not receive their AKF until the middle of the month or later. There is no charge for this service and fax or e-mail listings of positions which become available close to deadline are accepted. Our Fax is (785) 273-1980; e-mail: akfeditor@zk.kscozmail.com< Listing must be sent as MS Word attachment. To post a position on the AAZK website, have listing to email address above by the 25th of the month for posting on the first day of the following month. We are no longer located at the Topeka Zoo, so please note new address to avoid delays in processing.

Elephant Trainer- Indianapolis Zoo, Indianapolis, IN

Interested candidates must send resumé and cover letter including salary requirements to: Human Resources Department, Indianapolis Zoo, 1200 West Washington Street, Indianapolis, IN 46222. Email at jobs@indyzoo.com Please note on your information that you are interested in the Elephant Trainer position. EOE/ Drug Free Work Environment. The Indianapolis Zoo is seeking a professional to join the staff of their progressive and internationally-respected elephant program. The Indianapolis Zoo is known for its pioneering research in training, reproduction, and artificial insemination. We currently have 1.4 African elephants. The program will be expanding with the upcoming births of two calves. **Requirements:** Experience with elephants is essential. Experience with elephant births and calves preferred. Requires the ability to accept direction and work cooperatively as a member of the team in an extensive, proactive elephant program. The Indianapolis Zoo encourages staff involvement in research, education, conservation, training, and all aspects of animal care. Must have strong interpersonal communication skills and commitment to the long-term goals of the Indianapolis Zoo.

Zookeeper(s) - Milwaukee County Zoo, Milwaukee, WI

Application and experience papers may be obtained in person at the office of the Division of Human Resources, by writing a request to the Division, by calling 414-278-4143, or by downloading from www.mcdhr.org. The Division address is Milwaukee County Department of Human Resources, Milwaukee County Courthouse, Room 210, 901 North 9th Street, Milwaukee, WI 53233. Our zoo has professional development opportunities in conservation and research and a large and diverse animal collection. Starting pay is \$33,296 annually along with a complete benefit package. **Requirements include:** Graduation from high school or G.E.D. equivalent required; college or university training in zoology or closely related field preferred; certifications, licenses, workshops, seminars, conferences and/or other courses applicable to animal management or care desirable. One (1) year of experience in the care and handling of animals, other than personal or family household pets, within the last five (5) years is required. Additional experience with a variety of non-domestic animals, animal activities, zookeeping, wildlife care or management, and other animal related activities is preferred. Experience with computers is desirable.

Zoo Keeper (s), The Frank Buck Zoo, Gainesville, TX

Contact: Susan Kleven, Frank Buck Zoo, 1000 W. California St., Gainesville, TX 76240; crittermen@animalcd.com<; 940-668-4533. Our Zoo has undergone an exciting transformation. We are scheduled to re-open to the public the end of March. We have recently expanded not only the size of our staff, but also the size of the animal collection and the zoo itself. Currently there are (2) Zoo Keeper positions available. **Requirements:** Must have a positive can-do attitude with the ability to work both independently, and as a team player, be able to lift 50lbs., and have a sense of humor. We are a small zoo experiencing rapid growth, so flexibility is a must. Must demonstrate the ability to both listen and follow directions. Must have good observational and communication skills. Must be able to work one weekend day and most holidays. **Responsibilities include:** Daily diet prep, exhibit maintenance, dispensing of behavioral enrichment items, and training of animal collection in assigned area. Prefer animal-related education/degrees or paid related work experience. Starting pay is \$10.00 per hr. plus benefits.

The following two (2) positions are available at The Elephant Sanctuary, Hohenwald, TN. Please send resumé and references to: Scott Blais, The Elephant Sanctuary, P.O. Box 393, Hohenwald, TN 38462 or FAX to: 931-796-4810 or e-mail scott@elephants.com< Jobs will be posted until filled.

The Elephant Sanctuary, the nation's largest natural habitat refuge for elephants, is looking for two enthusiastic individual to join our team. Over the past 14 months we have expanded our facilities to 2700 acres of elephant habitat and increased our elephant population to twelve. We received Delhi; the first elephant confiscated by the USDA, completed a 300-acre African habitat and barn and acquired three female African elephants, created a TB quarantine facility and received two of the Hawthorn elephants, Lota and Misty. Plans for 2005 include the completion of fencing to enclose an additional 2200 acres of elephant habitat and the construction of two additional Asian barns capable of housing 40 elephants.

Lead Elephant Keeper - Responsibilities: The qualified applicant will be charged with supervising the maintenance of female African elephants in a multi-hundred acre habitat. Responsibilities include but are not limited to keeper training and supervision, behavioral data collection and record keeping, behavior conditioning; will be trained (in-house) to manage the elephants using the non-dominance technique of passive control. **Requirements:** Candidate must be physically fit and able to lift 65 lbs., possess a strong work ethic and have a progressive attitude toward captive elephant welfare. Candidate must be self-motivated and have the ability to

work unassisted. Due to the job requirement the candidate must be mechanically inclined and able to work weekends. The starting pay range is between \$19,000-\$21,500 and benefits; six (6) months probationary period.

Elephant Keeper I - Responsibilities: The qualified applicant will be charged with maintaining female African and Asian elephants in two separate multi-hundred acre habitats. Responsibilities include but are not limited to cleaning, food preparation, record keeping, behavior conditioning, construction and facility maintenance. The chosen candidate will be trained (in-house) to manage the elephants using the non-dominance technique of passive control. **Requirements:** Candidate must be physically fit and able to lift 65 lbs., possess a strong work ethic and have a progressive attitude toward the welfare of captive elephants. Candidate must possess the ability to work unassisted and be self-motivated. Due to the job requirement the candidate must be mechanically inclined and able to work weekends. The starting pay range is between \$18,000-\$19,500 and benefits; six (6) months probationary period.

Zookeeper/Guides - Soco Gardens Zoo, Maggie Valley, NC

Send resumé to: Soco Gardens Zoo, Jim Miller, 89 Evans Cove Rd., Maggie Valley, NC 28751. Please include cover letter stating dates available to work and letters of recommendation from immediate supervisors, preferably zoo-related, if available. Good opportunity to gain paid zoo experience. Positions are seasonal available March - October and May - October. E-mail address: socogardenzoo@bellsouth.net; website address: www.socogardenzoo.com < **Responsibilities:** Duties include but not limited to giving lectures to the public on various mammals and reptiles, participating in the daily feeding, care, and enrichment of mammals and reptiles, and various maintenance. **Requirements:** Must be willing and able to do physical labor, required good oral communication skills, neat appearance, and must work well with co-workers. Must have experience in handling non-venomous reptiles or a willingness to learn. Non-smokers. Must work six days per week and holidays. Salary: \$240.00 per week. Lodging, utilities and uniforms furnished. No personal pets.

The following two (2) positions are available at The National Aquarium in Baltimore, Pier 3, 501 East Pratt St., Baltimore, MD 21202. Please apply for either position online at: www.aqua.org/employment.html or fax to: 410-986-2350. EOE

Curator of Rainforest Exhibits – National Aquarium in Baltimore, MD

The National Aquarium in Baltimore is searching for an experienced Curator to manage the living bird, reptile, amphibian, invertebrate, tropical plant, and mammal collection, and life support systems in our neotropical Rainforest exhibit and associated exhibits. **Closing Date:** Until Filled. **Responsibilities:** Directs and participates in the daily operations of the maintenance of the living collections of neotropical birds, mammals, reptiles (includes venomous species), amphibians (focus on dart frogs), invertebrates, and tropical plants. Oversees the Rain Forest, Hidden Life, Sea Cliffs (Atlantic alclids), and Amazon River Forest exhibits. Plans, directs, implements and monitors propagation programs for neotropical birds, amphibians, reptiles, invertebrates, and mammals. Attends development and planning meetings including staff meetings and problem-solving meetings. Identifies animal health problems and coordinates care and treatment with the medical staff. Writes reports and memos and serves as liaison to other departments on husbandry matters. Plans and implements long and short term goals for the section. Oversees all record keeping for the section. Plans and implements new exhibits and exhibit changes. Determines needs and implements acquisitions or dispositions of living collections associated with the section, including safe capture and transport of specimens. Plans, manages and coordinates collecting trips including permit procurement. Plans and administers the Rain Forest section budget including food, supply, and equipment procurement. Participates in planning and implementation of capital projects within the section. Coordinates purchases of food, supplies, equipment and maintains inventory. Supervises Rainforest exhibit staff including recruitment, training, scheduling, and performance management. Maintains knowledge of industry innovations and new techniques through publications, presentations, and regular communication with colleagues. Oversees conservation programs and research projects for the section. Provides expertise to other departments including Education, PR, Exhibits & Design, Communications and others.

Requirements: Bachelor's degree in biology, animal husbandry or a related science, or equivalent work experience required. Five (5) years experience in aquarium or zoological field required, including three (3) years of experience in a supervisory capacity. Experience with mixed species, walk-through exhibits preferred. **Note:** Salary will commensurate with experience. Only candidates who are legally authorized to work in the U.S. will be considered for this position. Visa sponsorship will not be available.

Senior Herpetologist – National Aquarium in Baltimore, MD

The National Aquarium in Baltimore is seeking a Senior Herpetologist to provide care and implement propagation programs for neotropical reptiles, amphibians and invertebrate collections and the maintenance of the Rain Forest, Amazon River Forest, and Hidden Life and associated exhibits and off-exhibit holding areas. **Responsibilities:** Provides daily care and implements propagation programs of neotropical reptiles, amphibians (with a focus on dendrobatids) and invertebrates in exhibits and back-up holding areas. Prepares diets, feeds and provides water to reptiles, amphibians, and invertebrates in the exhibits and back-up holding areas and orders supplies. Monitors health of reptile, amphibian and invertebrate collection and works with the medical department to develop and implement treatment programs. Monitors and implements breeding programs for the reptile, amphibian, and invertebrate collections. Maintains live feed colonies as assigned. Observes animal behavior such as inter and intra species aggression, interference with reproduction, feeding, etc., habitat use, etc., and gathers data in order to base management decisions. Researches reptiles, amphibians and invertebrates

captive and natural history to determine correct environment and diet for maintenance, breeding and/or exhibition. Maintains the Rain Forest, Amazon River Forest, and Hidden Life Exhibits and back-up holding areas. Cleans exhibits; drains Rain Forest pools, hose out, cleans filter baskets, backwash, swirl and refill, as needed. Services Hidden Life Exhibits daily. Services Amazon River Forest daily. Assists with enclosure and exhibits improvements, by designing, contacting vendors and implementing habitat enhancements. Monitors and records temperature, water chemistry data, etc. Monitors, operates and maintains life support equipment. Gives presentations, back-up tours to members and colleagues, etc. Participates in field collection/research. Implements improvements in exhibits and/or procedures. Conducts research and publishes or presents results. **Requirements:** Bachelor's Degree in herpetology, biology or related field, or equivalent experience and minimum three (3) years previous work experience in a professional animal facility required. Experience with reptiles, amphibians and invertebrate keeping, breeding capture, handling techniques and transports. Experience with venomous species is desired.

Zoo Keeper - Happy Hollow Zoo, San Jose, CA

Full Time with Benefits; \$32,156.80 to \$39,083.20 annually. If you are an interested candidate who meets the minimum qualifications listed below, you can be considered for this vacancy by applying online. To find the announcement, go to <http://jobs.cityofsjs.org/>. Click on "Open Recruitments." Click on "Zoo Keeper" to view the job announcement. Click the "Apply to this Position" button at the bottom of the job announcement to apply. Applications and resumes accepted online only. **Position is open until filled.** **Responsibilities:** A Zoo Keeper performs work involving the care of zoo animals and maintenance of cages, enclosures, grounds and service areas. The incumbent prepares diets for the animal collection; performs maintenance tasks for animal enclosures, holding and service areas; works with animal collection in preparation for presentations, capture and restraint, basic husbandry, and activity enrichment behaviors; and responds to general questions from the public regarding zoo animals. The work schedule includes weekdays, weekends and holidays as assigned. **Requirements:** The ideal candidate will possess the most desirable combination of training, skills and experience, as demonstrated in past and current employment history. Desirable experience, knowledge and skills for this position include: 1) Knowledge of specialized care techniques unique to exotic animals and typical of zoo collection animals. 2) Knowledge of modern zoo operating practices and principles, including safety principles for working with non-domestic animals as they pertain to zoo exhibits and performance of animal husbandry tasks. 3) Ability to enter animal areas and perform physical work (including lifting objects up to 60 lbs.) under all climatic conditions. 4) Knowledge of principles and practices of volunteer leadership. 5) Able to work a flexible schedule that includes weekends, nights and holidays. 6) Experience performing and/or assisting with basic veterinary procedures. 7) Ability to work well with others, effectively communicate and interact with the public; express oneself clearly and concisely, both orally and in writing. 8) Ability to perform basic construction and maintenance of animal habitats and displays, including plant maintenance.

Bird Curator/Handler

(Full-Time, Permanent) - Ketchikan Indian Community, Ketchikan, Alaska. To apply send application and resum  and the names and contact information for 3 to 4 professional references (at least 2 previous supervisors) to: Ketchikan Indian Community, Attn: Human Resources Department, 2960 Tongass Avenue, Ketchikan AK. 99901; or Fax to (907) 228-5245; or send electronically to choward@kictribe.org. **Open until filled.** Please submit all technical questions to choward@kictribe.org. No telephone calls please. Ketchikan Indian Community Deer Mountain and Eagle Center is seeking an organized and highly motivated individual who enjoys working with educational birds, has the ability to train raptors, including Bald Eagles, and can develop and present bird education/recreation routines to support our visitor-industry program, and the ability to rescue, assess and provide emergency treatment to sick and injured birds. **Responsibilities:** Understanding or researching State and Federal Permit requirements, including housing, dietary and husbandry concerns; record keeping requirements under various wildlife permits; Participate in day-to-day operations which include but is not limited to injured bird rescue, intake and transfer, husbandry planning and implementation; Perform and supervise the performance of best management practices in wildlife medical diagnosis and treatment and care for resident birds and injured birds brought to facility; Prepare oral presentations on the biology, natural history, environmental issues, and Native American cultural traditions of the raptors and ravens; Train partially-flighted raptors, including bald eagles for display and use in presentations for the public including schools, civic groups and visitors at the Eagle Center; Work with other rehabilitation centers and permitting agencies; Work with other staff and Economic Development Director to support the growth of the Hatchery/Eagle Center tour operations; Work with other staff to develop other revenue sources such as grants and donations; and excellent communication, interpersonal, and organizational skills required; **Requirements:** Experience in raptor handling and training with special emphasis on bald eagles. Four to five (4-5) years full-time experience at a bird rehabilitation center, wildlife care facility or similar preferred. Two-year (2) experience in tourism/educational related setting preferred. Experience working under Eagle Exhibition – Live or similar Federal permits highly desirable. Must be able to prove significant raptor handling (including Bald Eagle) experience. Knowledge, Skills, and Abilities: Knowledge of wildlife policies and permitting requirements as outlined by state and federal wildlife agencies; Knowledge of wildlife medical, rehabilitation, and policy issues (veterinary technician training desirable); Ability to work independently, establish strategic goals and objectives, and successfully implement plans; Ability to serve as mentor and supervisor to animal care and bird handling staff and interns; Ability to handle the stress and long summer hours of fast-pace tourist attraction; Team player attitude mandatory. Must have or ability to possess a valid Alaska driver license. **Working Conditions:** Ketchikan, Alaska is an island community located in Southeast Alaska, 600 miles North of Seattle, Washington in the Middle of the Tongass National Forest. The Tongass is a

temperate rainforest and the nation's largest forest. Ketchikan receives 150+ inches of rain each year, but has a mild winter. You may view detailed Ketchikan community information at: www.ketchikanchamber.com or www.info@visit-ketchikan.com The Deer Mountain Hatchery/Eagle Center is located in a park within the City of Ketchikan. It lies next to a creek that plays an integral part of the hatchery's operation of raising and releasing salmon. The Eagle Center is a small facility with main emphasis on caring and training educational birds. We work closely with Alaska Raptor Center in Sitka who are licensed to provide full rehabilitative and veterinarian care. To view all services provided by KIC, you may view at www.kictribe.org Fortunately for us, nearly 800,000 cruise ship tourists will visit Ketchikan this year. This number is expected to double within the next 10-15 years. Fees generated from tours of the hatchery/eagle center are necessary to operate the Hatchery/Eagle Center. These tours include live bird education programs. KIC fully expects that tour operations will grow at the hatchery. We seek an individual who is excited about the prospect and challenges of working at a growing tourism-related enterprise. **Salary:** Annual salary is commensurate with experience. Highly qualified candidates salary range \$40,000+. Moving expense considered **Benefits:** Six-month probation, paid sick and annual leave, health insurance cost share, life insurance and access to other insurances, 401K benefit after one year employment. **Indian Preference:** In accordance with Indian Preference Act of 1934, application for the position must include verification of Indian blood to qualify for Native Preference. All applications will be considered.

Elephant Guardian/Handler - Okavango Delta, Botswana

In order to apply, candidates should either e-mail or mail the following documents to us: 1) detailed CV with accurate dates; 2) cover letter; 3) photo; 4) as many letters of reference as possible and as many reference contacts as possible; 5) any other relevant documents. Upon receiving the above we will email a more detailed job description to candidates. Internship leading to the possibility of a Permanent Position. **Responsibilities:** Handling and Husbandry of one male and two female African elephants; Interpretation of elephant biology and behavior for international guests; Helping in general camp maintenance and daily operations. **Requirements:** The four first requirements are essential: Must be ready to relocate to Botswana's Okavango Delta, to live under primitive conditions in a pristine natural environment; Must have at least two (2) years experience working in a free contact environment with male and female elephants; Must be physically fit and heat tolerant, i.e. capable of a lot of walking and occasional sprinting, sometimes in temperatures in excess of 100 degrees F (38°C); Must have good cross-cultural communication skills for working with local staff and international tourists. The following abilities would also be helpful: A comprehensive knowledge of elephant behavior and ecology. Any related degrees or coursework in mammal biology and ecology, in animal husbandry, in natural history and in animal training would be appreciated; Mechanical skills, off-road driving experience; Bush survival skills, first aid training; tolerance for insects, spiders and snakes; General interest in botany and zoology. Contact Information: Doug and Sandi Groves, Directors, Grey Matters, P. O. Box 66, Maun, Botswana; Phone: ++ 267 68 00 261; e-mail: grey.matters@info.bw; website: www.livingwithelephants.org

Seasonal Keepers Needed - Claws 'n Paws Wild Animal Park, Lake Ariel, PA

Interested student should send or email their resumé to Vince Hall, Claws 'N Paws Wild Animal Park, Box 1932 Ledgedale Road, Lake Ariel, PA 18436; email at vincehall@echoes.net We are looking for a number of college students who are majoring in one of the biological sciences to serve as paid keepers in a zoo. **Requirements:** These applicants should have completed at least one year of college and have had some experience working on a farm or in a stable. Previous zoo experience is desirable. They should also be available for at least three months, beginning in May. **Responsibilities:** Seasonal employees are responsible for many of the same tasks as full-time keeper. They will do the basic cleaning and feeding, and also help with other activities like lory and giraffe feedings, animal presentations, and helping our visitors have an enjoyable visit. The zoo is located in the beautiful Pocono Mountains of northeast Pennsylvania, about two hours from New York City or Philadelphia.

The following four (4) Seasonal Keeper positions are available at the Indianapolis Zoo, Indianapolis, IN. Send cover letter and resumé to: Human Resources Department, Indianapolis Zoo, 1200 West Washington Street, Indianapolis, IN 46222. Email: jobs@indyzoo.com EOE/Drug- free workplace.

Seasonal Plains Keeper

Responsibilities: Candidates will be responsible for the manual work involving the care and maintenance of exotic animals. **Requirements:** Must display a professional appearance as well as a professional, positive and enthusiastic attitude to both visitors and co-workers. Must be temperamentally suited to working with animals as well as with the public. Animal experience preferred. College course work in a suitable animal related field may be substituted. Weekend, holiday, overtime or varied shift work will be required. Position starts mid-May and can continue through September 2005. Please put "Seasonal Plains Keeper" in your cover letter.

Seasonal Encounters Keeper

The Indianapolis Zoo is looking for friendly and enthusiastic candidates for seasonal animal keepers to perform manual work involving the care and maintenance of the animals, plants, and exhibits under their care. **Requirements:** Candidates must display a professional attitude and appearance to both customers and co-

workers while performing manual work Horse handling experience and public speaking experience preferred. Weekend, holiday, overtime or varied shift work may be required. Please put "Seasonal Encounters Keeper" in your cover letter.

Seasonal Forest Keeper

Responsibilities: Candidates will be responsible for the manual work involving the care and maintenance of exotic animals. **Requirements:** Must display a professional appearance as well as a professional, positive and enthusiastic attitude to both visitors and co-workers. Must be temperamentally suited to working with animals as well as with the public. Animal experience preferred. College course work in a suitable animal related field may be substituted. Weekend, holiday, overtime or varied shift work will be required. Position starts mid-May and can continue through September 2005. Please put "Seasonal Forest Keeper" in the cover letter.

Seasonal Lorikeet Keepers

Responsibilities: Candidates will be responsible for the manual work involving the care and maintenance of approximately 30 lorikeets in a visitor-lory-interactive exhibit. **Requirements:** "Applicant must display a professional appearance as well as a professional, positive, and enthusiastic attitude to both visitors and co-workers. Candidate must be temperamentally suited to work with the public as well as with small parrots. Psittacine experience preferred, but not necessary. Minimum education requirement is high school diploma; college graduate or coursework in suitable animal-related field desirable. Weekend, holiday, overtime or varied shift work may be required. Position starts mid-to late-May and continues through October, possibly into November 2005. Please put "Seasonal Lorikeet Keeper" in your cover letter.

Craftsman/Senior Craftsman (Life Support) Building and Grounds – Facilities, Brookfield Zoo, Brookfield, IL. Resumes from interested candidates may be mailed to: Brookfield Zoo; Attn: Human Resources Department; 3300 Golf Road; Brookfield, IL 60513; or if preferred may be sent via e-mail to: greatjobs@brookfieldzoo.org; or fax to: (708) 485-0986. **Responsibilities:** Performs skilled craft duties throughout the park with a focus on life support systems, including but not limited to: repairs, maintenance of pumps, motors, filters, compressors, chillers and other equipment associated with water quality, capital construction projects, and preventative maintenance as assigned. Ensures work performed provides a safe environment for visitors, employees, and the animal collection. Ensures exhibits and facilities are functional, in a well-maintained state, and support zoo objectives. **Requirements:** High school diploma or GED. Graduate of an accredited apprenticeship program, or two (2) years experience at a journeyman level, an associate's degree related to field or equivalent. Minimum two (2) years mechanical experience required for Craftsman level position; minimum four years required for Senior Craftsman. Ability to read, write and perform all required math commensurate with field of responsibility. Familiarity with all codes related to field. Must have knowledge and experience in scheduling, estimating, purchasing, and project management. Requires general mechanical skills related to electrical, plumbing, and craftsman duties, and the ability to learn water chemistry and maintenance of closed-water systems. Must obtain SCUBA certification within one (1) year of hire. Valid driver's license required. Incumbent is required to carry a pager and respond to emergencies as needed. Brookfield Zoo is an equal opportunity employer that values and promotes diversity in the workplace.

Internship Opportunities – Center for Animal Research and Education, Bridgeport TX. CARE is currently looking for qualified interns for Summer and Fall of 2005. To apply for this position please send your resume and references to Attn: Heidi Riggs, 245 County Road 3422, Bridgeport, TX 76426.

Responsibilities: Assisting the Curator and Executive Director in planning and coordinating the care, diet, and habitats of exotic felines. **Requirements:** Candidates must have good written/oral communication skills and the ability to work effectively in a team-oriented environment. Must have or be working on a four-year degree in related field. All candidates must have the ability to lift 50 pounds and a willingness to work outdoors. Weekends and holidays are required. For additional information please visit our website at www.bigcatcare.org.

Environmental Interpretation and Wildlife Care Internship - Trailside Museums and Wildlife Center, Bear Mountain State Park, Bear Mountain, NY 10911-0427. Contact: Jennifer Verstraete at (914) 786-2701 ext. 278 or 265; email - clayne.keith-feller@oprhp.state.ny.us Start Dates: Summer internship mid-May through mid-August; Fall internship late-August/early September through early November. Internship is unpaid, but provides knowledge and experience; written evaluation gladly given. Possible course credit if intern can arrange it. Interns will work at least three (3) days a week, including one weekend day. No housing available. We reimburse full payment for required pre-exposure rabies series. **Qualifications:** Enthusiasm, comfortable handling animals, motivated to learn. Must be 18 or older; preference given to college student looking for experience in the care of wildlife and in environmental interpretation. **Responsibilities:** 1) Provide care for permanently injured or orphaned park wildlife (mammals, birds, fish, amphibians and reptiles) in zoo setting. Under the supervision of a Senior Zookeeper will prepare food and diets, maintain enclosures and exhibits, and provide enrichment; 2) Interact with the public answering questions, interpreting exhibits, possibly developing and offering short interpretive talks.

If You're Moving.....

Make sure to notify AAZK National of your change of address. Don't miss a single AKF issue! Call: 1-800-242-4519 (US) or 1-800-468-1966 (Canada) or you can email: aazkoffice@zk.kscoxmail.com

AAZK Membership Application

check here if renewal []

Name _____

Address _____

City _____ State/Province _____ Zip/Postal Code _____

Country _____ Email _____

U.S. Members

☐

\$40.00 Professional

Full-time Keepers

☐

\$35.00 Affiliate

Other staff & volunteers

☐

\$35.00 Associate

*Those not connected with
an animal facility*

☐

**\$65.00 or up - Individuals
Contributing/U.S.**

☐

\$125.00 or up

Institutional/U.S.

*Organizations/Institutions
(requires Board approval)*

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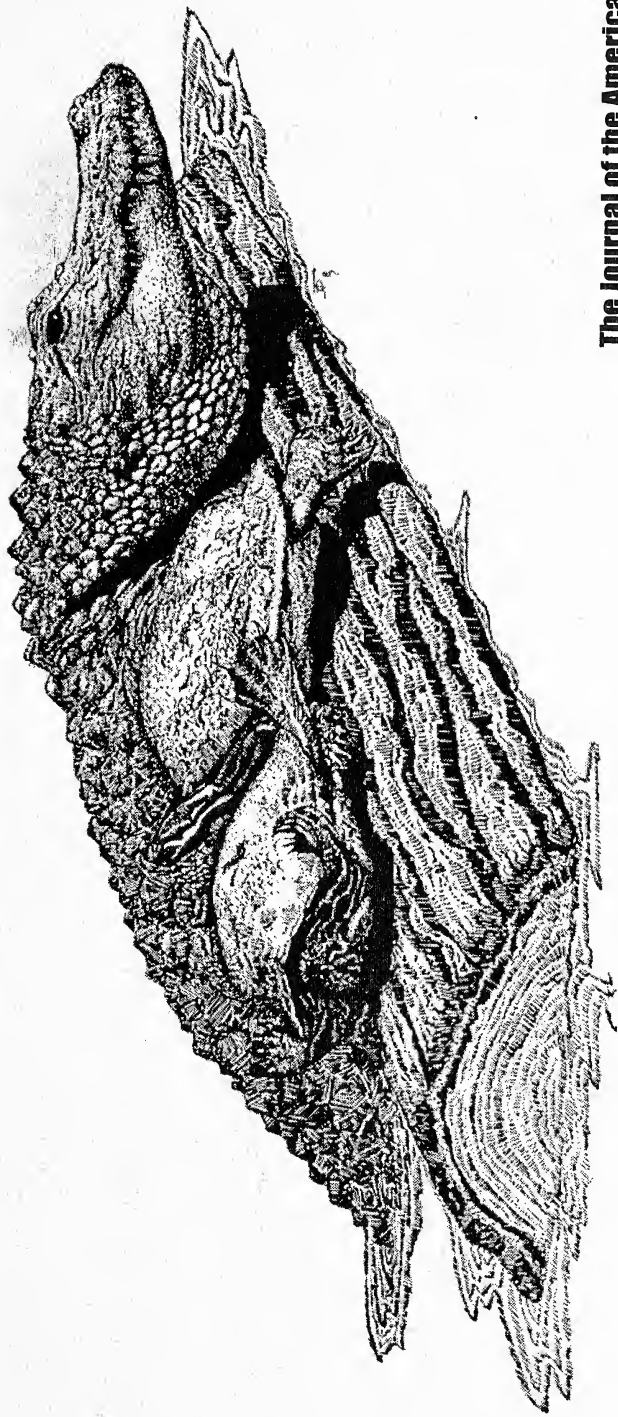


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30th Anniversary
1974 - 2004

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ANIMAL KEEPERS' F O R U M



American Alligator

The Journal of the American
Association of Zoo Keepers, Inc.

MAY 2005

Managing Editor: Susan D. Chan • **Associate Editors** • Kayla Grams, Grand Junction, CO & Mark de Denus, Reid Park Zoo • **Enrichment Options Coordinators:** Dawn Neptune, Utah's Hogle Zoo & Rachel Cantrell, Disney's Animal Kingdom • **Legislative/Conservation Outlook Column Coordinator:** Georgann B. Johnston, Sacramento, CA. • **ABC's Column Coordinator:** Diana Guerrero, Big Bear Lake, CA • **Reactions Column Coordinator:** William K. Baker, Jr., Little Rock Zoo

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AAZK Executive Director: Ed Hansen, AAZK, Inc., Topeka KS
also serves as AAZK Liaison to the American Zoo & Aquarium Association (AZA)

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AAZK Enrichment Notebook 3rd Edition - Lee Houts, Folsom City Zoo

Resources for Crisis Management in Zoos & Other Animal Care Facilities, Vol. 2 - Susan D. Chan, Topeka, KS



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30th Anniversary
1974 - 2004

About the Cover.....

This month's cover features the American Alligator (*Alligator mississippiensis*) drawn by Debi Talbot, a keeper in the Bird House at the Smithsonian's National Zoo, Washington, DC. Under legal protection the American alligator has made a suprisingly strong comeback from being seriously endangered. It is a large and powerful reptile with a rounded snout and a uniquely large fourth tooth that fits conveniently into a socket in the upper jaw. They will feed on animals of all kinds, including birds perched on low-hanging branches. Feeding activity is governed by water temperature, with foraging activity ceasing if the temperature drops below 20 to 23°C (68 to 73°F). During the breeding season the female constructs a mound of vegetation and mud and lays 25-60 eggs inside it. This nest may be about three feet high and six feet in diameter. The incubation period is between 9-10 weeks. After hatching the female may stay with her brood for up to three years. This species lives in aquatic habitat in the Southeastern United States. Adults males typically reach 4 to 4.5 metres (approximately 13 to 14.7 feet), with females reaching lengths of just under 3m (approx 9.8 feet). The lifespan of the American alligator can be as long as 50 years. The estimated wild population is one million and this species is listed on CITES Appendix II. Thanks, Debi!

Animal Keepers' Forum publishes original papers and news items of interest to the animal keeping profession. Non-members are welcome to submit articles for consideration. Articles should be typed or hand-printed and double-spaced. Authors are encouraged to submit their manuscripts on a disk as well as in hard copy form. Manuscripts submitted either on disk or electronically as attachments to an email should be submitted in Microsoft WORD. All illustrations, graphs, charts and tables should be clearly marked, in final form and should fit in a page size **no greater than 5.5" x 8.5"** (14cm x 22cm). Literature used should be cited in the text (Brown, 1986) and alphabetically in the final bibliography. Avoid footnotes. Include scientific name (as per ISIS) the first time an animal name is used. Thereafter use common name. Use metric system for weights and measurements (standard equivalents may be noted in parenthesis). Use the continental dating system (day-month-year). Times should be listed as per the 24-hour clock (0800, 1630 hrs. etc.). Glossy black and white **or** color prints (minimum size 3" x 5" [8cm x 14cm]) are accepted. Clearly marked captions should accompany photos. Please list photo credit on back of photo. Photographs may be submitted electronically as either JPEG or TIFF file attachments.

Articles sent to *Animal Keepers' Forum* will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for *AKF*. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 1-800-242-4519 (US); 1-800-468-1966 (Canada); FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com<

**Deadline for each regular issue is the 10th of the preceding month.
Dedicated issues may have separate deadline dates and will be noted by the editor.**

Articles printed do not necessarily reflect the opinions of the *AKF* staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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E-Mail Addresses: You may reach Barbara Manspeaker at AAZK Administrative Offices at: aazkoffice@zk.kscoxmail.com< You may reach Susan Chan and *Animal Keepers' Forum* at: akfeditor@zk.kscoxmail.com<

AAZK Website Address: www.aazk.org

BFR Website: <http://bfr.aazk.org>

Scoops & Scuttlebutt



Chapters Support AAZK, Inc. Through Donations

The AAZK Board of Directors and the Administrative Office staff would like to thank the following Chapters for their donations: Tulsa AAZK Chapter (Tulsa, OK) \$250.00 for the Conservation, Restoration & Preservation Fund; and the Beardsley Zoo AAZK Chapter (Bridgeport, CT) \$100.00 towards the production costs for *Animal Keepers' Forum*. Our sincere thanks for your support.

ICZ Second Call for Papers/Posters and Workshops

The 2nd Conference of the International Congress of Zookeepers has issued a Second Call for Papers. After the success of the 1st conference in 2003, a second conference will be held in Gold Coast, Queensland, Australia from 7-11 May 2006 with more than 300 zookeepers from around the world expected to attend. The conference will cover all areas of Zookeeping.

You are invited to submit an abstract of a paper or presentation you would like to give. More information and guidelines can be found at www.iczoo.org

Abstracts for oral and poster presentations should be written in English and no more than 600 words long. If you want to run a workshop focused on developing zoo keeper skills please send a short description.

These should be sent to: Paul Howse, ICZ Programme Committee at p.howse@chesterzoo.org Preferably in RTF or MS word format marked 'ICZ Programmme'. **Deadline for submissions is 30 September 2005.**

Those of you who participated in the first ICZ last year in The Netherlands know what an amazing experience it was, and we hope you will plan to attend the ICZ Conference in 2006. What you may not know is that generous donations from various AAZK Chapters greatly reduced the final cost of attending the conference. In the end, the total cost per participant was just \$350, which included registration, lodging, and most meals. We reached this affordable price thanks to donations from local AAZK Chapters and the various international professional keeper associations. Compared to some of the conferences we usually attend, this was a real bargain!

In some cases, local AAZK Chapters banded together to completely fund keepers from developing countries who would otherwise be unable to attend. These Chapters pooled their resources to pay airfare and registration costs for individuals from Latin America and other areas.

We intend to continue this generous tradition, and hope your AAZK Chapter will consider sponsoring a keeper from another country. If you prefer, you can simply donate to the general operating costs of the conference in order to reduce the overall registration cost for all participants.

Start planning an ICZ fundraiser now. Your donation can really make a difference to keepers (and animals!) in parts of the world without access to our resources.

Please send your designated ICZ donations to: AAZK, Inc., 3601 S. W. 29th St., Ste. 133, Topeka, KS 66614-2054.

Any questions? Contact
Shane Good: sjg@clevelandmetroparks.com
or
Norah Farnham: Norah.Farnham@zoo.org

The Reptile and Amphibian Training and Enrichment Workshops

What is R.A.T.E.? The Reptile and Amphibian Training and Enrichment Workshop was developed as a forum to discuss what facilities were doing in the area of reptile training. At its inception in 2002, Florida institutions were invited to participate in a local workshop to share information and best practices on this topic. The idea was well received and Disney's Animal Kingdom hosted the first workshop in April of 2002 for 23 participants from 12 AZA and non-AZA institutions. The high level of interest prompted the implementation of two more workshops hosted by Gatorland in November of 2002 and the St. Augustine Alligator Farm Zoological Park in November 2003 respectively. Participation has more than doubled and topics have grown to include training and enrichment of both reptiles and amphibians.

A Steering Committee was formed after the first workshop and charged with maintaining the momentum and focus of future workshops. The Committee has worked on establishing a listserv that has grown to over 60 subscribers, compiling workshop information for formal publication, organizing future workshops, and clarifying the workshop mission.

As part of the evolution of RATE from a local to a national workshop. Disney's Animal Kingdom will host the first "national" workshop on December 8, 9 and 10, 2005. The goal of the workshop will be to, continue the exchange of information and best practices in the area of reptile and amphibian training and enrichment.

For more information about RATE, the national workshop and/or the Listserve and how you might participate, please contact Andy Daneault (andre.j.daneault@disney.com) or Vance Alford (vance.c.alford@disney.com).

Thank you,

Steering Committee

Andy Daneault (Co-chair)(Disney's Animal Kingdom)

Vance Alford (Co-chair)(Disney's Animal Kingdom)

Michelle Skurski (Secretary)(Disney's Animal Kingdom)

Kent Vliet (member)(University of Florida)

Flavio Morrissiey (member)(Gatorland)

John Brueggen (member)(St. Augustine Alligator Farm Zoological Park)

AAZK Data Forms Available - Soon to be Available Online

Data transfer forms are available gratis to zoological institutions by contacting the AAZK Administrative Offices at 1-800-242-4519 (U.S.) or 1-800-468-1966 (Canada). These forms should also be available in downloadable PDF by later this month so watch the AAZK website for them (www.aazk.org). These forms include the original Animal Data Transfer Form (ADT), the Enrichment Data Transfer Form (EDTF), and the Operant Conditioning Data Transfer form (OCDTF). We encourage all zoological institutions to utilize these forms when shipping an animal to another facility. Having this information travel with the animal, and made available will help ensure that receiving staff has all the pertinent data on that animal to help make the transition to its new home easier, and hopefully, less stressful. With the greater emphasis on enrichment and training at all AZA-accredited facilities, this information will prove especially important in providing continuity and consistency when an animal is shipped. Encourage your facility to make use of this important, and free, resource provided to the zoological community as a professional courtesy by AAZK, Inc.

Conference 2005

New Orleans, LA

August 28 - September 1

FINAL Call for Papers

The theme for this year's conference is "Bringing Out Your Wild Side, New Orleans Style." We are looking for papers, posters, workshops or roundtables that include inspirational or motivational aspects of the zoo keeping profession. Presentations involving all taxon are desired. Topics of interest include husbandry techniques, training, enrichment, education, exhibit design, conservation, research and professional development.

Include the following information with each abstract:

Name and title of presenter(s)

Institution

Address, including e-mail

Title of paper, poster, workshop or roundtable

Short bio of presenter (for introduction)

Audio/Visual needs



Deadline for Abstracts:
1 June 2005

Deadline for Papers:
28 July 2005

Abstracts should be limited to one or two paragraphs. Abstracts must include in detail the significance of the topic to be presented along with the results, conclusions or benefits of the work described. Poorly written or incomplete abstracts will be returned! Mail abstracts to: Michelle Muniz, Audubon Zoo, 6500 Magazine St., New Orleans, LA 70118; or email to AAZK2005@auduboninstitute.org

New Orleans Pre- and Post-Conference Trip Updates

Pre-conference: Jackson and Hattiesburg Zoos

Leave the Sheraton Hotel at 7:30 am - 8:00 am on Saturday, 26 August to Jackson Zoo; should arrive there in time for lunch (provided by the zoo). Tour the zoo until about 3 or 4 and head for Hattiesburg Zoo. Have dinner (provided by the zoo) in Hattiesburg then go out and see the town, staying that evening in a hotel (included in price of trip). On Sunday, 27 August, have breakfast in Hattiesburg (also provided by the zoo), then see the Hattiesburg Zoo. Leave Hattiesburg around noon and head back to the hotel in New Orleans to register for the conference. Price of this trip is \$75.00. Again, includes transportation, two zoos, hotel, lunch, dinner and breakfast. Space is limited to 20, so sign up early.

Post-conference: Baton Rouge Zoo, Friday, 2 September 2005

Leave the Sheraton at 10 or 10:30 a.m. on Friday, 2 September to the Baton Rouge Zoo. Arrive in time for lunch (provided). Tour the zoo until about 3 or 4 and head back to New Orleans. Price of this trip is \$35.00. Includes transportation, lunch and the zoo. Space is limited to 25.

Post-conference: Belize, September 2 – 6, 2005

After booking your international flight to Belize City, you MUST contact Mike at info@belize-ecotours.com with your flight info so he can arrange the rest of the trip. There is more information on the Belize trip on page 59 of the February 2005 issue of *AKF*, or at the conference website at www.aazk2005.org

Check Out the Conference Website - www.aazk2005.org

There you will find a Tentative Conference Schedule, info on the pre- and post-conference trips, hotel information and registration forms, exhibitor' tables info, sponsorship opportunities, the "Chapter Challenge", plus interesting tidbits about New Orleans - the "Big Easy"

Coming Events

4th Annual Callitrichid Behavioral Husbandry and Management Workshop - 21-22 May 2005 - to be held at The Smithsonian's National Zoo and The National Aquarium in Baltimore; Washington D.C. Presented by the Cotton-top Tamarin SSP. Free with Pre-registration. E-mail MICKELBERGJ@nzp.si.edu for pre-registration form and abstract guidelines. For information contact Michelle Farmerie at (412) 365-2385.

Second International Conference: Animals and Zoos, Current Research Focus - 24 - 25 May 2005 at Malta Training Centre, Wiankowa Str. 3., Poznan, Poland. Address for correspondence: "ZOO Conference", Ogród Zoologiczny w Poznaniu, Ul. Browarna 25, 61-048 Poznan. Tel. (+48 61) 61-8709502; Fax (+48 61) 877 35 33; e-mail: zoo.cwiernia@interia.pl

Fifth World Congress of Herpetology - 20-24 June, 2005 at Conservatorium for Music, Stellenbosch University Campus, Stellenbosch, South Africa. Please visit the website <http://www.wits.ac.za/haa/> or contact the organizer at conf@conferencesetal.co.za < Dr. Ernst HW Baard Manager: Scientific Services Western Cape Nature Conservation Board, Private Bag 5014 7599, STELLENBOSCH; Tel: +27-21-866 8001; Fax: +27-21-866 1523; Mobile: 082-41 40 424; Scientific Services office no. +27-21-866 8000. Visit our website: <http://www.capenature.org.za>

21st Congress of the International Primatological Society - 26 - 30 Jun2 2006 in Entebbe, Uganda. For further info: wolupot@yahoo.com

7th International Conference on Environmental Enrichment - 31 July - 5 August, 2005, hosted by the Wildlife Conservation Society in New York City, NY. Registration fee is US \$250. Conference site is Columbia University, with day trips to Central Park Zoo and the Bronx Zoo. Housing arrangements have been made for Columbia dorm rooms, starting at \$45 per person, double occupancy. The theme is "Unifying the Art and Science of Animal Enrichment". Please visit wcs.org/icee2005 for more information on submitting papers and registering for the conference. Please contact icee2005@wcs.org if you have any questions.

Association of Avian Veterinarians 26th Conference 8-11 August in Monterey Bay, CA. For more information or to view the entire program visit www.conferenceoffice.com/aav or you can email aav@conferenceoffice.com; phone 303-756-8380.

1st EAZA Training Seminar for Zoo Educators - 15-21 August 2005 hosted by the Copenhagen Zoo. For further inquiries, please contact Peter Haase (pnh@zoo.dk) at the Copenhagen Zoo.

28th Annual Meeting of the American Society of Primatologists - 17-20 August 2005 in Portland, OR. For more information, contact: Dr. Kristine Coleman, Chair of the local organizing committee, at colemank@ohsu.edu

First European Congress of Conservation Biology 23-27 August, 2005 in Eger, Hungary. Organized by the Society for Conservation Biology - European Section and the Hungarian Natural History Museum. This cornerstone international event will for the first time bring together academics, students, policy makers, natural resource managers and NGO representatives from all over Europe to address all aspects of conservation biology from research to application. Please visit the website (<http://www.eccb2006.org>) for details, and register for new information.

32nd AAZK National Conference - 28 August - 1 September 2005. Hosted by the Audubon AAZK Chapter and the Audubon Nature Institute. Watch *AKF* in the coming months for more information.

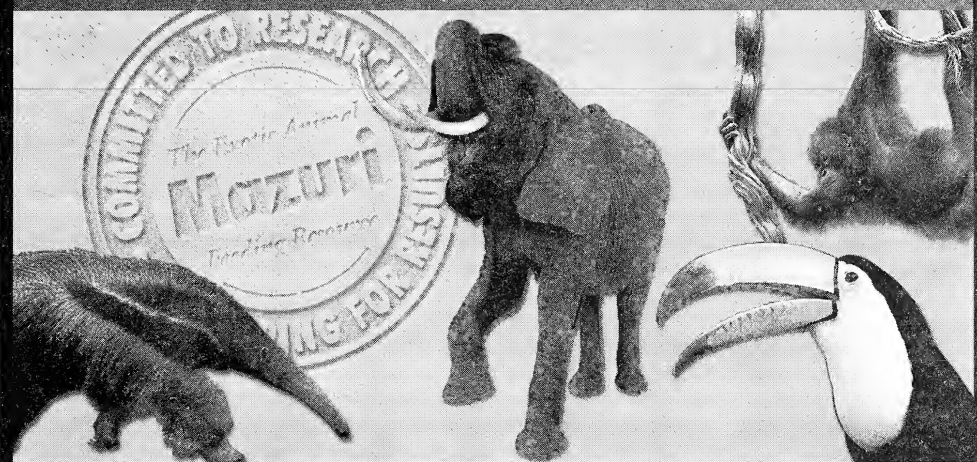
New World Primate Workshop (A focus on Cebids) 30 September - 1 October 2005. The Cleveland Metroparks Zoo announces a workshop on New World Primates that will focus on the captive care of Cebids in U.S. institutions. Informal roundtable discussions will include the following topics, diet and health, social groups and mixed species, enrichment and training behaviors, and population management. The workshop will begin at 10 am on Friday, September 30, and end at 4 pm on Saturday, October 1. Attendance is limited to 50 people and registrants will be asked to complete a pre-meeting survey regarding their experiences with Cebids. The workshop will be held on the zoo grounds. Some meals will be provided and local lodging suggestions can be provided. Registration fee = \$25. For more information and a registration form contact Tad Schoffner at 216-635-3332 or email at tad@clevelandmetroparks.com

26th Annual Elephant Managers Association Workshop - 5-9 October, 2005 in Portland, OR. Hosted by the Oregon Zoo. Pre-conference trip will be to the Point Defiance Zoo (5 Oct.); the post-conference trip will be to Wildlife Safari (10 Oct.). For more information please visit their website at <http://www.oregonzoo.org/ElephantWorkshop> or email elephants@metro.dst.or.us

Second International Congress of Zookeeping (ICZ) 7-11 May 2006 in Gold Coast, Queensland, Australia. Visit website: <http://www.iczoo.org> for latest information. See information on First Call for Papers in the November 2004 issue of *AKF*.

2006 International Gorilla Workshop - 23-26 June 2006 at Paignton Zoo, Devon, England. Will include Icebreaker, three days composed of plenary sessions, discussion workshops and zoo visits. Post-conference tour will include several significant U.K gorilla/ primate collections including Howletts and Port Lympne Zoos. Watch here for further information.

Post Your Coming Event Here - email to:
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AAZK By-Laws Proposed Revisions

Pursuant to the bylaws of AAZK, Inc., the following proposed revisions to the existing bylaws are presented here to the membership for their notification. This notification is taking place at least 45 days prior to the Annual Business Meeting of this Association (scheduled for Thursday, 1 September 2005 in New Orleans, LA). Wording proposed for deletion are shown in ~~strike thru~~ and new language is shown in *italics*. Note that the text below does not include the entire bylaws, but only those portions where a proposed revision is being presented. A full copy of the AAZK, Inc. bylaws are available at the AAZK Administrative Offices. Members attending the Annual Business Meeting will be asked to ratify the adoption of the following revisions:

AMERICAN ASSOCIATION OF ZOO KEEPERS, Inc BYLAWS

Article 2: Officers and Board of Directors

Section 1. Board of Directors.

The affairs of the Association shall be managed by ~~an elective Board of Directors~~, *a Board of Directors elected by the Professional Membership of the Association. The number of Directors shall be set according to a policy detailed in the Operations Manual of the Association, consisting of two (2) officers and five (5) other members.* The officers shall be the President and Vice-President. The Immediate Past President ~~whose term as an elected Board Member has expired~~ shall serve as an ex-officio member of the Board without the right to vote and shall serve as ~~the Secretary~~ *an advisor* to the Board of Directors. The President of the Association shall be elected by Executive Committee appointed by the Board of Directors in a policy detailed in the Operations Manual of the Association.

Section 2. Term of Office.

The term of Office of the Directors shall be four (4) years. Elections shall be held every two (2) years, ~~with four (4) directors being selected at one election and three (3) being selected on the alternate election.~~ Each member of the Board of Directors shall serve from the conclusion of the Annual Business Meeting following their election. No elected Board member shall serve more than two (2) consecutive terms. Presidential and Vice Presidential terms shall be two (2) years.

Article 3: Meetings

Section 1. Annual and Mid-Year Meetings.

The Board of Directors shall hold one (1) Annual Business Meeting and *shall have the option of scheduling* one (1) Mid-Year Board of Directors Meeting. *The meetings are* to consider the adoption of the annual budget, reports and recommendations of Committees, actions by staff and other appropriate business. The Annual Business Meeting shall be held in conjunction with the National Conference at a site selected by the membership and the Mid-Year Meeting shall be held approximately six (6) months prior to conference, in the site of the Administrative Offices of this Association or designated site ratified by a majority of the Board of Directors. Written notification of annual meetings is hereby published and dispensed. All meetings shall be conducted under Roberts Rules of Order.

Section 1a. Executive Session.

The Board of Directors shall meet in Executive Session in conjunction with the Annual Business Meeting at a time specified by the President. The Mid-Year Meeting shall also be held in Executive Session. *Executive Sessions are only open to the membership by invitation or summons.*

Article IV: Membership

Section 1. General Requirements

Membership in the Association shall be open to any zoo keeper, *animal technician* ~~attendant~~ or aquarist employed by a recognized zoo or aquarium; associated groups thereof, and to individuals and organizations interested in the objectives and purpose of the Association. The Board of Directors shall charge the Administrative Secretary of the Association with the responsibility of reviewing applications for the membership categories of Professional, Affiliate and Associate. Membership is subject to approval by the Board of Directors.

Section 2. Membership Categories

Contributing: ~~Any individual who wishes to contribute the sum of fifty dollars (\$50.00) or more to the treasury of the Association for any use deemed suitable by the Board of Directors of the Association. The Board of Directors sets the membership fee for this category of membership.~~ This category of membership, unless designated by the contributor as having the qualifications set forth in the Professional or Affiliate membership category, shall not retain the rights of a Professional or Affiliate member, but is entitled to receive a tax receipt for a charitable donation.

Institution/Commercial: ~~Open to any zoological institution, aquarium, or related animal care facility, or commercial vendor supplying animal care or related products to zoological institutions or AAZK, that wishes to contribute the sum of fifty (\$50.00) or more to the treasury of AAZK. The Board of Directors sets the Institutional Membership fee. Application for membership in this category is subject to approval from the Board of Directors. Criteria for membership in this category are available from the Administrative Offices of the Association. This category retains no voting rights. but is entitled to a tax receipt for a charitable donation.~~

Commercial: *Open to commercial vendors supplying animal care, animal foods or animal-related products or educational materials to zoological institutions or AAZK membership. The Board of Directors sets membership fees in this category. This category retains no voting rights but is entitled to a tax receipt for charitable donation.*

Article V: Termination and Suspension

Section 1.

The Board of Directors may, for cause, suspend or terminate any membership in any classification, or Chartered Chapter, by a majority vote. ~~All charges, with the exception of chapters failing to re-charter, will be forwarded to the Ethics Committee for review.~~

Sufficient cause for suspension or termination of membership or chapter shall be a violation of the Charter, Bylaws, or any rule, practice or resolution adopted by the Association and/or its Board of Directors, or any conduct prejudicial to the interests of the Association. Such members or chapter shall be notified of the charges by certified mail not less than thirty (30) days prior to the next Board of Directors meeting. The notification shall include the time and place of the next Board of Directors meeting. A member or chapter shall have the opportunity to appear in person or by representation to present their defense of the charges before any ~~formal~~ permanent action is taken by the Board of Directors. Failure to appear before the Board of Directors or present written evidence for defense of charges, shall forfeit the member's or chapter's right to a hearing and their membership or charter shall be terminated.

Article VI: Committees, Coordinators, and Advisors

Section 1a. Chair, Coordinator and Advisor Requirements.

A Committee Chair, Coordinator or Advisor may come from either the Professional or Affiliate categories of membership. ~~These positions, unless otherwise directed are made at the discretion of the President.~~ All Committee Chairs, Coordinators and Advisors are required to file both an Annual and Mid-Year report to the Board a minimum of thirty (30) days before the meeting, following the policies set forth by the Board in the ~~Administrative Directory~~ *Operations Manual*. All Committee Chairs, Coordinators and Advisors shall send to the Administrative Offices within thirty (30) days of their resignation or removal, all materials pertinent to the ~~project~~ *Committee or position*.

Section 1b. Appointments.

The President may appoint such *Committee* Chairs, Coordinators or Advisors ~~they as he or she~~ deem necessary to assist in carrying out the objectives of the Association.

Standing Committees

Nominations and Elections

There shall be a Nominations and Elections Committee consisting of at least three (3) Professional Members. Appointments are at the discretion of the President. ~~In an election this Committee shall be caused to~~ distribute to each Professional member a biographical sketch, platform statement and official ballot as delineated in the Nomination and Elections Manual. ~~This NEC Committee members shall not~~

~~nominate any of its members for such service are required to resign from the NEC Committee in order to be nominated for election to the Board of Directors.~~ This Committee shall also follow the provisions for recall elections delineated in the NEC Manual. Absentee Ballots for Board of Director Elections can be obtained from the NEC Committee by written request. Guidelines for this procedure are referenced in the NEC Manual.

Conferences

The Board of Directors shall distribute a call for Annual Conference Bids at least three (3) years prior to the date of the proposed Conference. The bid process and requirements are detailed in the Operations Manual of this Association. Chapters that have bid successfully by ratification of membership vote at the Annual Conference are required by the Board of Directors to sign and file the Agreement Statement regarding AAZK Conference: Chapter Responsibilities with the Administrative Office of the Association and are empowered by the Board of Directors to enter into any contractual agreement deemed necessary to host a professional conference. Registration fees are set by the Board of Directors, with input from the Conference Committee during the Annual Business Meeting ~~one (1)~~ two (2) years prior to the next conference. Allocation of Registration fees are referenced in the Administrative Directory.

Ethics

The Ethics Committee shall *be chaired by the Immediate Past President of the Association and shall consist of four (4) additional Professional Members.* ~~in addition to and chaired by the Immediate Past President of the Association.~~ Appointments to the Committee shall occur *when the need to impanel an Ethics Committee is made by the Board of Directors.* ~~every two (2) years and be made by the Board of Directors.~~ This Committee shall investigate any formal written complaints or violation of the Code of Professional Ethics, Bylaws, resolutions, *policy and procedure as delineated in the Operations Manual of this Association* as directed by the Board of Directors or the membership and make recommendations for action to the Board of Directors.

Article VII: Chapters

Section 3. Reports.

The officers of each Chapter are required to ~~provide complete~~ a yearly accounting statement generated by the Administrative Offices of the Association and return this report with their re-charter fees. Chapters failing to comply with filing the Yearly Financial Statement are subject to **Article V, Sections 1 and 2.**

Section 5.*Conduct.

Allegations of officer misfeasance, malfeasance, or allegations of embezzlement of Chapter funds shall be reported to the Board of Directors as per **Article V, Sections 1 and 2.** Willful violation of the **Code of Professional Ethics, Bylaws or Resolutions, policies and procedures** adopted and ratified by the Board of Directors shall be reported to the Board of Directors in writing and a copy filed with the Administrative Offices of this Association. If warranted, the Board of Directors are empowered to invoke **Article V, Sections 1 and 2** of these Bylaws. The Board of Directors may, by majority vote, place a Chapter on probation for up to one (1) year regarding manners of Chapter member conduct, Chapter conduct, or misappropriation of funds. Conditions of Chapter Probation and terms are referenced in the Operations Manual of this Association.

Section 7. Chapter Termination and Inactive Status.

Any Chapter may terminate its charter or request Inactive Status, for the purpose of reorganization, by unanimous vote of its membership at any regular or special meeting. A letter detailing the request must be sent to the Administrative Secretary of the Association. Chapters shall not be entitled to refunds of fees previously paid. ~~Resolutions Policies~~ adopted and ratified by the Board of Directors regarding Chapter Termination, Dissolution and Inactive Status are referenced in the Operations Manual of the Association.

Bylaws Chairman: Gisela Wiggins, North Carolina zoological Park, Asheboro, NV

Board of Directors Oversight: Kevin Shelton, Disney's Animal Kingdom, Lake Buena Vista, FL

AAZK Announces New Members

New Professional Members

Sharon Hunley, **Franklin Park Zoo (MA)**; Jennifer Gerzanic, **Buttonwood Park Zoo (MA)**; Derek Small, **Wildlife Encounters (NH)**; Maggie Sackrider, **Beardsley Zoo (CT)**; Angela Pizza, **Jenkinson's Aquarium (NJ)**; Pamela Harmon and Stephanie Kershaw, **Rosamond Gifford Zoo at Burnett Park (NY)**; Bruce Sankey, **Pymatuning Deer Park (PA)**; Kim Szawan, **National Aquarium in Baltimore (MD)**; Rebecca Archer, Rachel E. Rodkey and Nicole Graham, **The Maryland Zoo in Baltimore (MD)**; Craig Saffoe, **The National Zoo (DC)**; Annette Quinting, **Oatland Island Education Center (GA)**; Kelly L. Guinn, **Central Florida Zoological Park (FL)**; Demetria Kotsakis and Courtney Hunter, **Disney's Animal Kingdom (FL)**; Susan Dittmer, **Brevard Zoo (FL)**; Anne Miller, **The Wildlife Center (AL)**; Ronald Manning, **Nashville Zoo at Grassmere (TN)**; Travis Caskey, **Hattiesburg Zoo (MS)**; Lee Turner, **Mesker Park Zoo (IN)**; Delia Plate, **Columbus Zoo (OH)**; Curt Coleman, **The Wilds (OH)**; Molly A. Miller, **Detroit Zoological Park (MI)**; Stacie Bockheim, Sarah Illingworth and Stacy Whitaker, and Emily Pokinghorne, **Racine Zoological Gardens (WI)**; Jennifer Lennert and Denise McClelland, **Brookfield Zoo (IL)**; Stephanie Westergren, **Omaha's Henry Doorly Zoo (NE)**; Jaime Oquendo and Melanie Secret, **Audubon Institute (LA)**; Sam Winslow and Phil Frost, **BREC's Baton Rouge Zoo (LA)**; Erin C. Day and Jeremiah Outman, **Little Rock Zoo (AR)**; Jennifer Lim, **Houston Zoo (TX)**; Debra Hegner and Ivy Brower, **Cheyenne Mountain Zoo (CO)**; Eileen Neff, **San Diego Wild Animal Park (CA)**; Alisha Costa, **Applegate Park Zoo (CA)**; Michelle Harvey, **Alaska Zoo (AK)**; and Kimberly Nelson, **Vancouver Zoo (BC, Canada)**.

(PLEASE NOTE: If you joined or renewed via the AAZK website and used PayPal, please be aware that we do not receive your zoo affiliation information from PayPal, only your mailing address. If you want your zoo listed with your name when it is published in AKF, please contact our office after you join/renew online to advise us of this information. Call 1-800-242-4519 (US) or 1-800-468-1966 (Canada); or email at aazkoffice@zk.kscoxmail.com< Thank you.)

Renewing Institutional Members

Lion Country Safari, Inc.
Loxahatchee, FL

Great Plains Zoo
Sioux Falls, SD

Utah's Hogle Zoo
Salt Lake City, UT

Omaha's Henry Doorly Zoo
Omaha, NE

Little Rock Zoo
Little Rock, AR

New Institutional Members

Oglebay's Good Zoo
Wheeling, WV

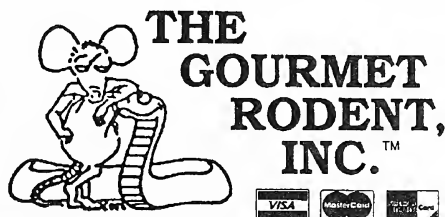
Alabama Gulf Coast Zoo
Gulf Shores, AL

John Ball Zoological Garden
Grand Rapids, MI

Brookfield Zoo
Brookfield, IL

BREC's Baton Rouge Zoo
Baton Rouge, LA

Point Defiance Zoo & Aquarium
Tacoma, WA



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Snipits from the ZooBiology Listserve . . .

The following items were taken from the ZooBiology Listserve organized by Peter Dickinson through the Yahoogroups. Peter has kindly given *AKF* permission to publish the great ideas on fundraising, enrichment and other topics which have come from the listserve members. We will try to include some each month as space allows. Need assistance? Try ZooBiology, it is probably your best bet for zoo/animal information. ZooBiology is the original discussion, Q&A group dealing with the diverse range of Zoo Sciences. First established in 1999, the Zoo Biology Group is concerned with all the disciplines involved in the running of a zoological garden - captive breeding, husbandry, cage design and construction, diets, enrichment, management, record keeping, etc. Hediger described zoo biology as "the science which embraced everything which was biologically relevant to the management of the zoological garden." This group is restricted to zoo professionals. It is specifically a forum for professional zoo staff. Exceptions may be considered in the case of students or allied professions. A genuine commitment to both *in-situ* and *ex-situ* conservation is absolutely essential. You are encouraged to copy answers to the group. The useful archive section increases each day. There are 1400+ Zoo Biology subscribers to date and 99% of subscribers have between five and 40 years of practical zoo experience in all areas. An immense combined expertise is waiting to share their knowledge. This group is moderated.

To Subscribe to Zoo Biology send an e-mail to: zoo-biology-subscribe@yahoogroups.com< Leave the subject and message area blank

#1 Tours of the commissary or kitchen areas of zoos seem to be popular with kids and grown-ups alike. Why not charge a small fee to see a "behind the scenes" area such as this? It's an alternative to feeding the animals yet still involves food. In Tucson it's called Breakfast with the Animals. The guests get a pre-opening tour of the zoo kitchen (when the most is going on), an animal bedroom and the vet area. Then they get bagels and donuts. It's very popular, costs maybe \$20 and does not involve feeding zooanimals. — Nusilusi - HH

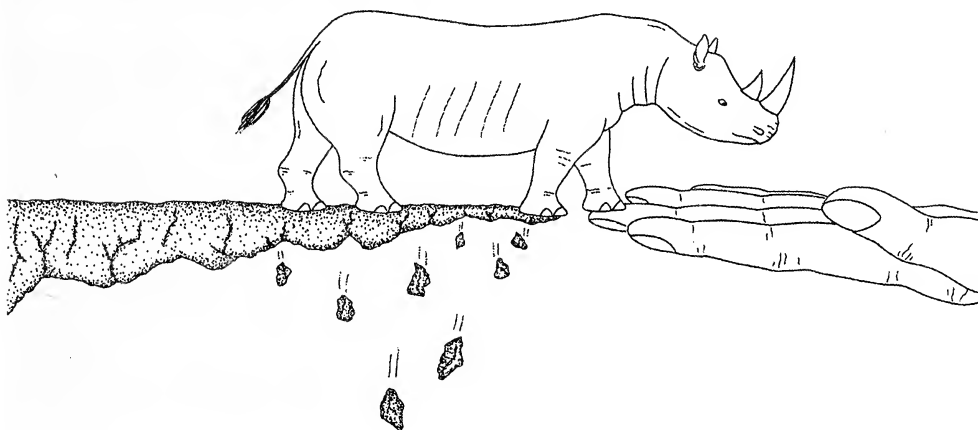
#2 - Muenster Zoo has a elephant feeding time in the afternoon, when visitors buy melons and bread and feed them under supervision of a keeper. That way they can control quality and amount of food. That might be a possibility. COMMENTS: But feeding can cause another problem which can get dangerous for the visitors: Elephants trying to grab everything in their reach, including arms of visitors, monkeys attacking people to steal food, kangaroos (or other animals) surrounding a person whose run out of food searching the pockets for more. The latter is especially dangerous in walk-through areas. Some of these situations can be funny, but they hold the danger of injuries and can be scary especially for children. There are enough cases of visitors being bitten by animals while they tried to feed. — Annette Benesch

#3 - Here in Plaswijckpark we do allow visitors to feed animals, but in a very controlled way. We only allow feeding during a special primary school children educational program called 'Eat and Being Eaten', where we control the species that are fed, the food items and given amounts by providing attending groups with a pre-filled box. The box contains food items, accompanying educational messages and assignments. Since we do not get thousands of children daily, the effect on the animals that are fed is almost none, AND the children always remember the program to be the best thing they have done all day! — Joris Verbruggen

#4 - (This could be done for cash) In some parcs visitors can "help" a keeper feeding animals during a educational keeper's talk or animal presentation. The keeper gives the food to the public which they then can feed to the animals, in this way it's just a part of the daily diet which is given by the public, the rest is given to the animal when they go into their nightquarters. Visitors may not touch or pet the animals during the feeding, unless told to do so by the keeper(s). Some examples of animals I know this is done with include: 1) free-roaming capuchin monkeys and squirrel monkeys; monkeypellets and fruit. 2) Patagonian sealions and seals; fish. 3) Loriekeets and lorries; nectar drinks and fruitpulp. 4) White rhinoceros; Unions and fruit. I'm sure that this can be done with many other animals. ---Mariano

---more next month

Bowling for Rhinos 2005



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Ros Hill, a famous artist, offered to do a National T-shirt design gratis for Bowling For Rhinos! Chapters do NOT have to use this design. It is your CHOICE! We just want to make things easy for you! The design is done. BlueRhino® is covering the \$150 set up charge for the graphics. The artwork can go on the front or back. Your Chapter name can be added at no additional charge.

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Bird Brains: Is that Hornbill Really Smarter than I am?

*By Tom Aversa, Animal Training Committee Member
Animal Keeper, Woodland Park Zoo, Seattle, WA*

Animal training in zoos has progressed by leaps and bounds in the zoo community. Many invasive husbandry procedures have become immensely simplified and less stressful for the animals (and keepers!). Soliciting voluntary cooperation of animals with trained behaviors for blood draws, ultrasounds, dental checks, hoof trims, vaginal swabbing, and many other procedures has become routine, but up until recently, most of this training has progressed primarily with mammals.

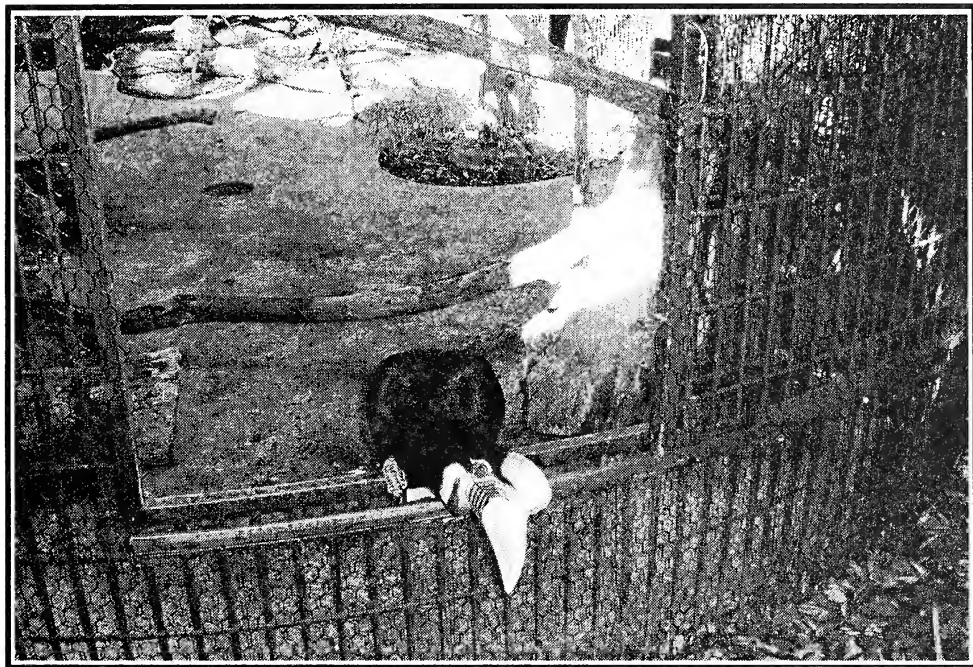
So how about birds? Recent neurological work has demonstrated what bird trainers have known all along: birds are also intelligent creatures with a huge capacity to learn. Studies have proven that the avian brain is extremely versatile. Jarvis et al (2005) reported that neurologists have re-examined the basic premises on the evolution of vertebrate brains, and found that the pallial region of the avian brain is analogous to the six-layered cortex of mammals. Their study group reported that birds have cognitive proficiencies that are quite sophisticated, and that some birds have abilities that “clearly exceed all other birds and mammals”. Memorization, communication proficiency, understanding object constancy, and advanced episodic memory all have been proven for birds. Surely, the slang expression “bird-brain” needs to be re-evaluated.

The primary focus of my job at Woodland Park Zoo has been bird training for a free-flight bird show. This pursuit has allowed me to learn from some of the best trainers in the world through my membership in the International Association of Avian Trainers and Educators (IAATE). There are no bird shows without well-trained animals; therefore this has always been an area where avian training has been on the cutting edge. Eliciting naturalistic behaviors on cue can inspire visitors to become interested in the natural world and help to conserve it. The results of show training play a critical role in furthering the mission statement of each institution.

Many routine aspects of show training are beginning to gain acceptance within bird exhibits. Voluntary cooperation can minimize the use of physical restraint and difficult and stressful catch-up techniques. Training birds to weigh and shift reliably have been some of the first steps. Vine (2002) trained Inca Terns to go to color-coded weighing stations in a free-flight aviary. Bird keepers are also finding that training birds on exhibit can greatly improve health monitoring, reduce intra-and inter-specific aggression, and also provide enrichment opportunities. Training allows birds choices in their daily routines and allows keepers to modify bird behavior by reinforcing desired behavior, and increasing the likelihood of their reoccurrence.

Some exhibit bird keepers already understand avian cognitive abilities and routinely implement the principles of operant conditioning and positive reinforcement to attain management goals. A few old time bird keepers were excellent trainers, who were training their charges daily, even if they did not necessarily call it “training”. Many of us realized that reinforcing negative behaviors would only make those behaviors more likely to reoccur. Conversely, when we reinforced cooperation, we increased the chances of that behavior reoccurring. Now that we have entered the 21st century, it is time for all institutions to attempt to formalize bird training programs to minimize netting, and difficult catch-up procedures as much as possible to reduce potential injuries and improve avian husbandry.

When training birds, follow basic training methods, and don't underestimate your subject's potential. Refer to recent *AKF* articles on basic training as well as the ATC section of the AAZK website (www.aazk.org). Training birds is a constant learning experience for the bird and the trainer. It takes years to become a proficient trainer, but you will never achieve successes unless you try, and successes are made at every step of the way.

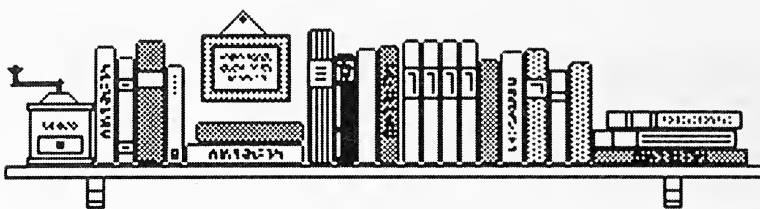


A Woodland Park Zoo resident Red-knobbed Hornbill (*Aceros cassidix*) reports to the edge of her exhibit where she been trained to station for crating or handling. (Photo by Eric Kowalczyk)

Always remember to be as clear as possible while communicating with the bird. Consistency is extremely important. Identification of a good reinforcer is also critical. You need to find something that the bird is motivated to work for, and this will often be its favorite food item. Always consider the bird's behavior in the wild. This requires doing some research on the species and understanding seasonal and social motivations. Learning to read bird behavior by understanding its body language is critical, and will allow two-way communication. Your bird's slicked down feathers and avoidance behavior may dictate the need to take a step back and ask only a little bit at a time. Remember to consider distractions for the bird. If cage mates or other factors are interfering with training, you may need to create a more positive training environment. Move in small steps, but seek large successes. You'll be surprised at what you can get done in short periods if you set time aside time for training sessions. Always remember that your bird may be smarter than you are - but don't feel bad about it!

References:

- Jarvis, E.D., et. al. 2005 Avian Brains and a new understanding of vertebrate brain evolution. *Neuroscience* (6):151-159.
- Vine, C. 2004. Developing a comprehensive training program for 0.4 Inca Terns. *Animal Keepers' Forum*. 31 (2) 468-469.



Book Reviews

Venomous Snakes: Snakes in the Terrarium

By Ludwig Tratnau

Translated by Donald W. Stremme, VMD

English Edition, 2004

Krieger Publishing Company, PO Box 9542, Melbourne, FL 32902

ISBN 1-57524-138-2

352 pp, 129 color photos, \$74.50

*Review by Jeremy Konwiser, Animal Keeper,
The Living Desert, Palm Desert, CA*

Venomous Snakes: Snakes in the Terrarium is a useful reference guide for amateur and professional herpetologists dealing with venomous snakes in captivity. This book, originally published in German, is translated by Donald Stremme from the 1998 4th edition. The English edition does not address legal issues involved in keeping venomous snakes, as the information contained in the German version is not applicable to US laws. Responsible keepers should be aware of state and local regulations concerning venomous animals in captivity.

The preface and introduction stress the safety precautions that need to be followed when dealing with venomous snakes, such as secure housing, handling equipment, and medical response to snakebites. The author also seeks to dispel the myths and prejudices that often accompany venomous snakes, stating, "venomous snakes are certainly not contrary, infinitely furious, malicious, grateful, nor do they show tenderness. Only humans possess these qualities. Snake behavior is determined by inborn instincts and by experiences acquired in life."

Following the introduction are chapters describing general characteristics of venomous snakes. Topics covered are differentiating features of venomous and non-venomous snakes, chemistry and effects of snake venom, venomous snake caging and special adaptations, as well as anecdotal information on the author's own experiences with venomous snakebites. Accompanying these chapters are black and white illustrations of snake teeth/fangs, skulls, and head anatomy. A list of species presented in the book is also included.

Venomous Snakes covers 171 different species from three different families; Elapidae (cobras and allies), Viperidae (adders and true vipers) and Crotalidae (Pitvipers). Information given on each species includes identification, length, natural history and habitat, and husbandry and breeding. Subspecies and color variations are carefully detailed, and most of the descriptions include color photographs.

This book is an useful reference for anyone working with the venomous snakes described within. For some of the species accounts, herpetologists might want to dig deeper than the information given, or turn to a more recent text. Treatment and first-aid for envenomation is lacking in the English edition, the author's main advice is to seek immediate medical attention. The color photos are excellent, and highlight the wide range of coloration and camouflage these species possess. This book would also be useful in a classroom setting.

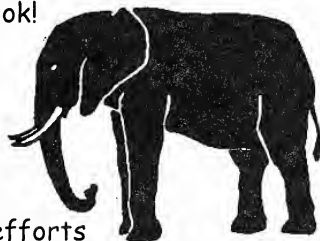
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AAZK Publications/Accessories Available

The following AAZK resource/reference publications in CD format and AAZK Logo Patches and Pins are available for purchase several ways. You may use the order form below; you may order online at www.aazk.org by either printing out an order form or using PayPal; or you may phone in your order at 1-800-242-4519 (U.S.) and 1-800-468-1966 (Canada) using either a Mastercard or Visa credit card. If sending in an order, please address to: AAZK, Inc., 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054 USA. Checks or money orders should be made payable to AAZK, Inc. in U.S. Funds ONLY.

Biological Information for Selected Mammals 4th Edition - The 1,396 page *Biological Information on Selected Mammal Species* CD covers a wide range from general, breeding, and young-rearing behavior to diet and physical descriptions of 590 species. The volume is in a PDF format allowing searches by Species (Common or Latin name); or Key words using the *Find* function; or by Species (Common or Latin name), Family; or Order using the *Bookmarks*. Table of Contents are given for Orders, Families, Species by Common Name, Species by Scientific Name, and Species by Order and Family. The Appendices cover a variety of information from behavioral patterns common to families (Bovid displays) to taxonomy (Primates). References are listed by Order and Family. Prices: AAZK Member \$25.00 NonMember \$40.00

AAZK Enrichment Notebook, Third Edition - This 455-page publication includes many facets of animal enrichment and is indexed for easy reference. The sections include an Overview of Enrichment, Enrichment Links, Enrichment Suppliers, Suggested Guidelines (Bats, Bears, Birds, Carnivores, Fishes, Primates, Reptiles, and Ungulates), Safety Considerations, Lists of Browse Plants and Toxic Plants, Cookbook Recipes for Enrichment, Enrichment Ideas/Devices (organized by category), Sample Enrichment Forms currently used in zoological facilities, and an extensive Enrichment Bibliography. This is a searchable PDF format document utilizing Acrobat Reader which is included. Prices: AAZK Member \$25.00 NonMember \$40.00

Zoonotic Diseases, Third Edition - Searchable PDF Format • Hyper-linked Zoonotic Disease List • Updated Guidelines for Animal Care Personnel • Updated Hygiene and Disinfection Section • 82 pages of Information. AAZK Member \$9.50 NonMember \$12.00

Publication prices include domestic and Canadian shipping. For overseas orders, please add \$5.00 per CD for Air Mail service.

The New AAZK Logo is now featured on both patches and enameled lapel pins. The colors are tan, rust, burgundy, grey and blue with a black border. Patches (4" x 3") cost \$8.00 each. Lapel pins are \$6.00 each. Prices include domestic and Canadian shipping. This price covers postage for one (1) pin or one (1) patch to overseas addresses. For orders from 2-6 patches or pins, overseas orders **must** add \$2.00 additional for shipping.

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Call for Papers - Volume II

Resources for Crisis Management in Zoos & Other Animal Care Facilities

The American Association of Zoo Keepers, Inc. (AAZK) is seeking submissions for our newest reference/resource publication, Volume II of *Resources for Crisis Management in Zoos & Other Animal Care Facilities*. Subject matter should be applicable to crisis management, zoological safety, emergency preparedness planning, public relations, case histories, and staff training. Papers should not exceed 10 pages in length with one-inch margins, conform to MLA standards, and should be submitted as a Word Document attached to an email that includes author contact information. Photos and other graphics should be submitted as either jpeg or tiff files. Authors should also submit a one-paragraph biography to accompany submission.

Author abstract deadline is set for **1 July 2005** with a final paper submission deadline set for **30 September 2005**. Publication is planned for 2006.

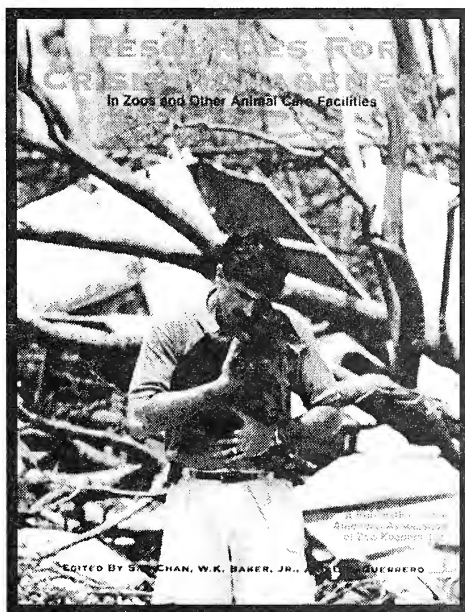
For more information, please contact:

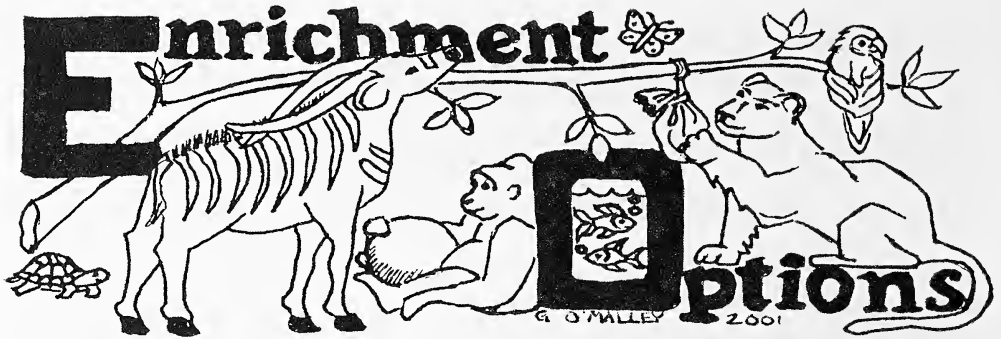
Susan Chan, Senior Editor:
akfeditor@zk.kscoxmail.com

or

Bill Baker, Associate Editor:
wkbaker@litlerock.state.ar.us

The First Volume of the *Resources for Crisis Management in Zoos & Other Animal Care Facilities*, published in 1999 was a bestseller, selling out with copies still being requested. We hope to make Volume II just as useful to animal care professionals. We hope you or your institution will consider submitting an article for this important reference work. We can all learn from crisis situations that have occurred at our own facility, and sharing information may help another facility avoid just such a crisis or, at the very least, be better prepared to handle it. We all benefit from sharing our experiences.





EO Editors - Dawn Neptune, Utah's Hogle Zoo
and Rachel Cantrell, Disney's Animal Kingdom

Pinniped Slides

By Tarah Bedrossian, Senior Mammal Keeper/Chair of Enrichment Committee
Detroit Zoological Park, Royal Oak, MI

Harp seals (*Phoca groenlandica*) are ice loving seals. Unfortunately for the harp seal, Mack, but fortunate for us, Michigan does not always have ice outside. Although Mack was the reason for building a "slide", as it turned out the other species of seals housed at the Detroit Zoo, harbor seals (*Phoca vitulina*) and grey seal (*Halichoerus grypus*), became particularly fond of the slide. In fact, it seemed they preferred to use the "slide" instead of the exhibit terrain to move from the indoor pool to the outdoor pool.

At the Arctic Ring of Life exhibit there is a significant slope on the deck from the indoor pool to the outdoor pool. By attaching four clear strips of weather stripping to the indoor deck platform (using cable ties) and allowing the strips to lay the length of the slope into the outdoor pool (unattached end of strips), a "slide" was created. The seals have the option to use the indoor or outdoor pool at all times, and they can go from one pool to the other by using the slide or the exhibit flooring. More often than not, the harbor and grey seals choose to use the slide. They also seem to have figured out how to control their speed and manner of entering the outdoor pool. Sometimes they go down on their side, or on their belly.

The clear strips are not easily seen by zoo visitors, and therefore do not create an eyesore or an unnatural look. The strips do become very slippery when wet or in the winter time, and keepers have to step over them, or risk sliding into the pool! Since one end is not attached to anything and the attached end is inside the building, they can also be rolled up in case the door needs to be shut. The seals do not chew on the plastic strips' loose ends, which dangle in the water. The young grey seal, however, has tried to, but did not, bite off a piece. What about the harp seal? The harp seal, Mack, has chosen to stay in one pool or the other and despite his migratory nature, he does not willingly "migrate" pool to pool so he does not use this particular slide.

After the success of the first slide, another moveable slide needed to be constructed. Exhibit "furniture" is always more enriching if it can be put in different locations, hence the idea for the mat-slide. Although this slide can be placed on any sloped surface, without an attachment point, it does not appear natural looking and can be unattractive. However, since it is MOVEABLE, there is no reason why it couldn't be put out after business hours or just for a day at a time.

This slide can easily be constructed in about a half an hour with all the necessary supplies. Measure the area/s you may want to put a slide. The slide should be long enough to withstand the seals' weight. Short slides will probably go into the pool with the seal, if it is not attached. Use thin (0.25 inch thick) rubber matting (usually sold in rolls) and cut to the desired length. The rubber mat

weighs down the slide and keeps it in place. Next you'll need either plastic weather stripping, or something similar. Attach the stripping, using cable ties and a sharp knife, to the black mat. Make sure the ties are tight, with the rough end under the rubber mat, and placed parallel to the mat (or the seals' belly might be slowed down by the ties). Next lie the mat on the desired slope (high traffic areas seem to increase the use). Although we did not have any issues, some seals may need time to acclimate to the "slide" and others may need to be desensitized by training sessions.



Sparky, a harbor seal, using the "mat" type slide to enter the outdoor pool. Sidney watches from below. (Photo by Tarah Bedrossian)

The purpose of the "slide" was to recreate the natural sensation of sliding down an icy slope or embankment. The "slide" not only increased the variability of substrate in our exhibit (since it is primarily a non-slippery cement), but also transformed a non-preferred point of entry into the preferred entry point from indoor to outdoor pool.

2005 New Orleans Conference Enrichment Committee Program

Are you planning on attending the National AAZK Conference in New Orleans? The AAZK Enrichment Committee would like to invite you to bring videos of enrichment at your facility to be shown on Video Night! Videos should be no longer than 10 minutes and contain contact information. Please consider bringing an extra copy of your video to donate to the *Shape of Enrichment* video library. See you at Video Night!!

Lee Houts Enrichment Excellence Award - Let Someone Shine!

Have you been impressed with an initiative that an individual or group has developed to better enrich their animals? Has an individual or group **you** know, developed an activity for a species in their care that has brought forth breathtaking natural behavior? Do you know an individual or group that has spearheaded a dynamic program helping their department move forward with sustainable, accountable, zoo-wide enrichment? Has this individual or group inspired you through their dedication to enrichment for captive wildlife? If so, you can let them and their colleagues know just how much their hard work is appreciated through the Lee Houts Enrichment Excellence Award. Information and criteria for Enrichment Hero! **Deadline for nominations is 1 June 2005.** Award recipients and their work will be featured in an issue of the *Animal Keepers' Forum*.

(Ideas appearing in this column have not necessarily been tested by the editors for safety considerations. Always think ahead and use good judgement when trying new ideas. You are invited to submit materials for the Enrichment Options Column. This might include recipes, toys, puzzle feeders, olfactory enrichment ideas, etc. Drawings and photos of enrichment are encouraged. Send to: AKF/Enrichment, 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054; or email to akfeditor@zks.kscmail.com Eds.)

Husbandry Manuals Register in Progress--Submissions Sought

The ASZK has commenced a project which aims to create a "register" of all Husbandry Manuals which are currently available, and make this list freely available to everyone from the ASZK Web Site. Currently there is no central listing of the various Husbandry Manuals which have been produced, nor who to contact to obtain copies of specific manuals, and it is hoped that by providing this service we will be supporting keepers in their efforts to improve the husbandry and welfare of the species in their care. For this project to succeed though, we need your help! If you have written a husbandry manual or know of someone who has, could you please e-mail the details (see below) to me at Geoff.Underwood@ASZK.org.au or alternatively you can download the registration form at <http://www.aszk.org.au/Husbandry%20Manuals.dwt/> While this project has been initiated by the ASZK, it is not limited to Husbandry Manuals from the Australasian region, and we are looking to have the registry include manuals from Europe, the US and elsewhere as well.

Husbandry Manual Registration Details should include the following:

Species: Common Name and Latin/Scientific Name

Manual Details

Publication Date	Electronic version available?
Author(s)/Editor(s)	Hard copy version available?
Available from	Cost (to purchase - if any)?
Contact person	Copyright holder?
Postal Address	If this manual is freely available for downloading from a web site,
Phone	please provide the site address;
Fax	
E-mail	Other: Is the full version available for inclusion on web site?

Submitted by: e-mail address:

My First AZA Course: Partially Funded By The Geraldine Meyer/AAZK Professional Travel Grant

*By Tammy Sandquist, Keeper
Happy Hollow Zoo, San Jose, CA*

Attending the Managing for Success: Career Development Professional Course offered by AZA (American Zoo and Aquarium Association) exceeded my expectations. It was the perfect place to start with a wide variety of subjects. The atmosphere was casual, class lengths set appropriately, and a great feeling of camaraderie. They made you feel as though you were important. The overall theme was that keepers, teachers and directors were on the same level. We have the same similar interest, "to save the world". The best way to do that is together. If you want to get involved, just ask. I felt this would be seen as intrusive by some, but was assured that there are areas where help may be needed. There's only one thing that could have made this week better, good quality sleep.

Even before I arrived, the registration process was easy and all of my emails were answered within just a couple days! I'm just not used to such quick personal responses. At the airport it was easy to find the shuttle and I got to talk to some other students on the way. One of them was a graduate student of the new master's program and the others had been to classes before so on the hour and a half ride to the hotel I got to ask questions and feel more comfortable with my first taste of AZA school.

I arrived across country just in time to register for the class and my room. Both were also free of stress. I had asked to be assigned with someone else who wanted to share a room, to save on the hotel stay. I also thought it would be a good way for me to get out and meet more people. Left on my own I probably would have retired to my room each night to do homework (yes, there was homework), and not met the great people there. My roommate and I were honest with each other at the get-go about our idiosyncrasies that others may find annoying. Alas, we were a perfect fit! This friendly atmosphere continued that night at the opening ceremonies all the way through to the last celebration.

The hotel was small and older. Some may say quaint. I found it perfectly comfortable. It was nice not having to walk a mile, and take a dozen elevators to get around, like you have to at Las Vegas. For those more adventurous, or with a group, you could stay at a nearby cabin. I liked not having to go outside to get to the classrooms and dining areas. But then I'm spoiled with California weather. The only time I had to go outside was to visit the nearby Good Zoo. We animal people really needed our fix and the weather was beautiful and the facility people-friendly. It was a nice respite and reminder why we were all there.

They provided a wide variety of beverages, breakfast and lunch buffets. This was a great place to meet more people and get a quick bite without having to worry about a bill or ordering. What a great idea! And what fun! There was a restaurant in the hotel with great food and spirits, also. There were other options, but it took me all week to try all the things on the menu I wanted.

Each day classes started at 8 am and went to around 4:30 pm. There were roundtables on three consecutive nights, from 7-9 pm. The different subjects are sure to contain interesting topics for anyone. And, like the classes, participation was encouraged and necessary. Don't forget dinner and homework sometime in there! Is there any wonder I was tired?

The classes were set at a good time length. The inside temperature demanded packing with a variety of clothes in order to be comfortable. Note taking was minimal due to the excellent content of the notebook we were given with the pertinent information for our particular class. Computer access would have been nice for neat and tidy homework assignments though.

Generally Career Development is seen as the first class students start with to give them an overview of the many facets affecting our profession. For this particular class the subjects were very broad. They encompassed everything from employment law to diversity.

The instructors were enthusiastic and eager to share their knowledge with us. They weren't just our teachers, but actually dealt with the material in their own positions. Test anxiety must have been running rampant, because they helped us weed out potential test questions. It was greatly appreciated. Of course, I haven't received my score yet! Like the AZA officials I met there, they were open and supportive. They wanted us to succeed.

AZA recently partnered with George Mason University to construct a master's program in zoo and aquarium leadership with three areas of specialty. Although I'd been doing my own research on it for a year already, talking with current students and someone from the university, was the easiest way to make my decision to attend. The chance to ask questions directly from the source eased my anxiety. Since some attendees were taking these courses for graduate credit, we were graded on additional criteria and had a different (longer) test. Great, more pressure.

As I said before, this is the class usually taken by first-timers. This month I'm taking another AZA class through their Traveling Training Program, and, if admitted to the master's program, two more every year to complete the required classes. AZA now offers classes two different times a year to allow people to take more than one a year, a must for grad students. The university allows distance learning, on-line classes, as part of their program. This will allow me to keep working in my field and maintain an income.

Check out at the hotel was just as easy as checking in. Back on a scheduled shuttle to the airport heading home. I had left the hotel phone number if anyone needed to get a hold of me. I wondered if all was well at home and work.

I wrote this article because I received a travel grant from AAZK. In today's economic climate it is increasingly difficult to get funding, such as company or government programs. Every dollar helps. While working through the grant application process I again received fantastic responses - short, timely and friendly. I encourage others to do their own research looking outside immediate employers and income situations for alternatives.

As those of you who have attended similar events know, upon returning to work you have a renewed enthusiasm and energy. The more I accomplish the more I want to do.

I'd like to thank my references and Happy Hollow Zoo for their support, AAZK for offering the financial aid, and AZA for the opportunity to convene with others in this profession. I made some great friends and contacts and look forward to seeing them again. This really is just the beginning. Thank you for helping make it possible.

Amazon.com Users -- Don't Forget the AAZK Connection

Just a reminder that if you regularly (or even occasionally) purchase items on *amazon.com*, there is a way you can also help out the Association while you are doing your shopping. If you go to *amazon.com* from the AAZK Home Page (www.aazk.org), the Association will receive 5% of the cost of your purchase. The *amazon.com* icon is at the bottom right of the AAZK Home Page. And the percentage from purchase of goods is on all items you purchase there - books, music, etc. So next time you want to do a little online shopping at *amazon.com*, get there through the AAZK website and help out your professional organization.

AAZK Grant Programs!

Travel, Conservation, Research, and Professional Training

The Geraldine Meyer/AAZK Professional Travel Grants. A total of \$2,000.00 is available annually. Grants are awarded twice a year, in May and November. Applications, from new and experienced keepers, are evaluated on their merit based on the member's submission of all requested materials. Awards may range from \$1,000.00 to \$250.00 or less depending on need. Applicants are encouraged to solicit additional funds from their institution or other sources. Applicants with other committed funds, or in-kind support (time off) will receive slight priority but all applications are encouraged.

Applications for mid-year consideration are due by **1 February** of the calendar year; applications for end of the year consideration are due by **1 July** of the calendar year. Money will be available upon notice to the recipient. Winners are required to submit an article to the Forum on the workshop or research they participated in.

AAZK awards \$1,000.00 to the winning applicant to attend the new *Advances In Animal Keeping Course* offered by AAZK and AZA through the AZA professional schools program. Applications are due by **1 July** of the year prior to the one in which the applicant wishes to attend this course.

Conservation, Preservation, and Restoration Grant awards up to \$1,000.00 once a year for projects oriented toward all conservation, preservation, or restoration of habitats/species with a preference for projects taking place in the U.S. but not limited to this. Applications are due **1 June** of the calendar year for funding the following year.

Research Grants awards up to \$2,000.00 once a year for AAZK member driven research projects, small or large! Applications are due **1 June** of the calendar year for funding the following year.

Information and application forms for the AAZK grant program is also available on the AAZK web site - www.aazk.org.

IMPORTANT NOTE: All grant applicants and members with questions regarding AAZK Grants should contact Shelly Roach (Grants Committee Co-Chair) at Shelly.roach@columbuszoo.org

Jan Reed-Smith is out of the country from 1 May – 20 July 2005.

Chapter News Notes

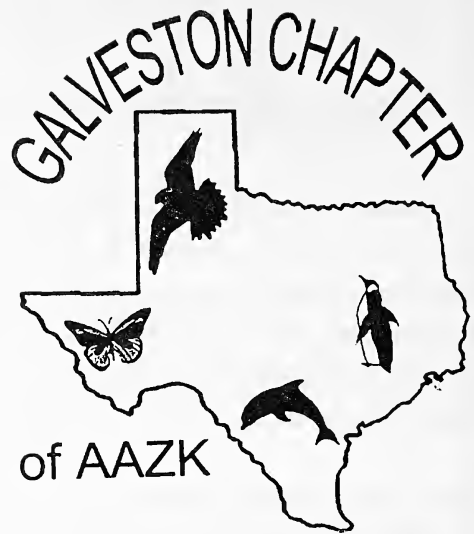
Galveston Chapter AAZK

Galveston Chapter AAZK officers for 2005 are:

PresidentMaggie Reynolds
Vice-President..... Katie DeLorenzo
Secretary.....Paula Kolvig
Treasurer.....Heather Leeson
2007 AAZK National Conference Chairperson
.....Diane Olsen

In 2004 our Chapter focused on fundraising and preparing for the conference bid. We held our first solo BFR event during '04. It was a great success.

In 2005 we will be focusing on more fundraising for the upcoming conference (2007).



AMERICAN ASSOCIATION OF ZOO KEEPERS



**ROGER WILLIAMS
PARK ZOO**
PROVIDENCE, RHODE ISLAND

Roger Williams Park Zoo Chapter

Two-thousand-four was quite a productive and eventful year for Roger Williams Park Zoo's AAZK Chapter of 14 members, raising almost \$7000. For the past three years we have held three main fundraisers:

1. Spring Raffle during April vacation week - we raffle off a basketfull of animal-themed items.
2. Member's Night Silent Auctions - items include framed paintings by a variety of animals (i.e. elephants, penguins, giraffe, tenrecs), we also include a framed picture of the artist, behind-the-scenes tours, and many other animal-themed items. Every year this is our most profitable event.
3. Elephant Pumpkin Smash - Participants buy a ticket and guess which numbered pumpkin will last the longest with the elephants. Prizes include stuffed animals, t-shirts, paintings by animals, and tickets to special zoo events.

Throughout the year funds come in from t-shirt sales (local Chapter logo and our version of endangered feces), coin barrels, and Thorogood printer cartridge recycling. In 2004 we supported many organizations of interest to our members and zoo employees, including The Nature Conservancy on Block Island, Riddles Elephant Sanctuary, Belize Wildlife Care Center, LEWA African School, and the Wallaby Project in Australia. We have also supported our member's trips to the National AAZK Conference in Dallas and the primate training and enrichment workshop. We are excited to say we have already added three new members to our Chapter this year.

Last but not least, our officers for 2005:

President.....Jennifer Hennessy
Vice President.....Christina Hudon
Treasurer.....Penny Krebs
Secretary.....Christine MacDonald

ABC's

ABC's: Animal Behavior Concerns and Solutions

A Question & Answer Forum for Animal Professionals

©2005 by Diana Guerrero, Independent Behavior Consultant
Ark Animals of California, Big Bear Lake, CA



Question (American Zoo) Part Two of Two

Our facility has recently encountered animal aggression involving one particular keeper. This is impeding animal training progress. Do you have any suggestions?

Background

Last month this column discussed some of the possible contributors to escalated aggression exhibited by a mature male primate toward his male keeper. Questions were asked to help identify challenge areas. This month we conclude with some strategies and suggested reading.

Strategies

Review the training log and area records.

One of the best keeper resources is the daily log. Review the area log and any training notes for the animal. This will aid your attempts to pinpoint when the aggression toward the keeper resurfaced. See if anything jumps out and grabs your attention. Also review the notes from when this keeper arrived on the string and what successful protocols were followed. Duplicate these.

Review species-specific ethograms.

Make sure everyone on the staff is sensitive to behavioral etiquette within the species and those that signal threats or solicit appeasement. Avoid any future cross-species blunders through this education.

Identify the situations where the problem occurs.

To successfully address the aggression you have to identify all the circumstances, times, and patterns surrounding it. Behavior is predictable. Once you outline the who, what, where, when, and how, then you can devise a strategy to avoid triggering the situation and develop steps to address it. The time to take action is BEFORE you get the escalated behavior.

Recognize the precursors and warnings predicting aggression.

Each animal exhibits precursory signals before displays or escalated aggression. Usually the early precursors include body tension, and changes in breathing patterns and movement. Learn to identify all the signals so you can redirect the behavior or terminate the session before undesired behavior is exhibited.

Desensitize the animal to the keeper.

Change the routine so that you can desensitize this animal to the male keeper. Find the critical distance (distance at which the animal first reacts—i.e. gets tense) and then extend it by five feet or so. Reinforce the animal when he does not react adversely to the presence of the male keeper.

Reinforce calm and relaxed behavior.

Reinforce toleration and relaxed behaviors. You will reward relaxed body posture, lack of tension, and then approximate tolerance of the male keeper. Use favorite behaviors and preferred reinforcement as you bring the male keeper into closer proximity.

Train an incompatible behavior

You can use alternate response training (behaviors that replace the undesired behavior or are incompatible with aggressive displays) to shift the animal's attitude and response. This training strategy is referred to as DRI (Differential Reinforcement of Incompatible Behavior).

Terminate the session prior to escalation into aggression.

Read the behavioral clues to avoid aggression and terminate the session prior to any escalation. Gradually lengthen the sessions and integrate these into your other training routines.

Integrate the trainer back into the training sessions.

Integrate the male trainer into the training sessions with this animal by first having him work the other animals and engaging in peripheral activities.

Are you a reader with a question? Be sure to submit it—and good luck in all your training endeavors!

Suggested Reading

Baekler, S. (2001) Chimpanzee-caregiver interactions in captive settings: The effects of "cultures" of captive management. Unpublished master's thesis, Central Washington University, Ellensburg, WA.

Bloomsmith, M.A., Laule, G.E., Alford, P.L., & Thurston, R.H. (1994) Using training to moderate chimpanzee aggression during feeding. *Zoo Biology*, 13, 557-566.

Estep, D.Q. & Hetts, S. (1992) Interactions, relationships, and bonds: The conceptual basis for scientist-animal relations. In H. Davis & D. Balfour (Eds.), *The inevitable bond: Examining scientist-animal interactions* (pp. 6-26). New York: Cambridge University Press.

Hill, S.P. (2004) Behaviour and welfare of captive western lowland gorillas (*Gorilla gorilla gorilla*) in relation to changes in housing. Ph.D. thesis, University of Cambridge, England.

Lash, Nevin, J. Ogden, L. Meller, V. Gunn. (1997) *Management of Gorillas in Captivity* (Husbandry Manual). Ed. J. Ogden, D. Wharton. Atlanta/Fulton County Zoo, Inc.

Lukas, K.E., Thompson S.D. (2002) Understanding increased aggression in a silverback gorilla at Lincoln Park Zoo: Challenging zookeeper hypotheses. (*Presented at the 25th meeting of the American Society of Primatologists.*)

Maki, S., Alford, P.L., & Bramblett, C. (1987) The effects of unfamiliar humans on aggression in captive chimpanzee groups. *American Journal of Primatology*, 12, 358.

Malone, N., Vaughan, L., & Fuentes, A. (2000) The role of human caregivers in the post-conflict interactions of captive chimpanzees (*Pan troglodytes*). *Laboratory Primate Newsletter*, 39, 1-3.

Waitt, C., Buchanan-Smith, H., & Morris, K. (2002) The effects of caretaker-primate relationships on primates in the laboratory. *Journal of Applied Animal Welfare Science*, 5, 309-319.

About the columnist: Since 1978 Diana L. Guerrero has worked professionally with both wild and domestic animals. Guerrero has been affiliated with and certified by a variety of animal programs in the USA and Europe. Information on her animal career programs, teleseminars and other projects are available through her website www.arkanimals.com. Questions for ABC's should be submitted to Diana by phone at (800) 818-7387, directly through the ABC's questionnaire on her website, via email zooit@arkanimals.com, or through regular mail: c/o ARKANIMALS.COM, PO Box 1989 PMB 215, Big Bear Lake, CA 92315 USA.

REACTIONS

A Question and Answer Forum for the Zoo Professional on Crisis Management

*By William K. Baker, Jr., Curator
Panthera Research, Maumelle, AR*



Question

Everyone seems to use a different style of lock at zoos, sanctuaries, and wildlife parks, what do you recommend?

Comments

Personally, I think padlocks are the most underrated form of security at a zoological facility. All too often I see zoos, refuges, and wildlife facilities build really great exhibits and holding areas, then turn around and secure them with the cheapest lock that they can find in the name of maintaining control of their annual budget. What type of lock you use can make all of the difference in the world, I can't begin to count over the years how many locks I have seen fail on the third pull while trying to confirm that the lock actually caught and held. There are few things worse than having a lock fall apart in your hands and then putting on a new lock from the same type and series. It just doesn't make sense.

There are two brands of locks that I use exclusively, Master Lock® and LSDA®. Both are comparable in quality, but if I had to pick one, it would be Master. Simply put, they offer the best weather and strike-resistant locks on the market. While they have an extensive line, I have used the following series extensively with good results. While they are not rekeyable, you can get them keyed alike by the case in my experience, thereby isolating specific areas of a facility. My personal favorites are the Security Series™ 130 and 140 locks.

Security Series™ 120, 130, 140 - Solid brass pin tumbler (non-rekeyable)

- 2" (50mm) wide body
- 5-pin tumbler security
- Hardened steel shackle
- Solid brass lock body is stylish and strong
- Body and cylinder covers protect locks from water, dirt and grime
- Heavy steel bodies withstand forcible attacks

Security Series™ 575 and 576 - Solid brass pin tumbler (non-rekeyable)

- Solid brass body is strong, durable and resists corrosion
- Dual ball locking for added protection from prying and hammering
- Hardened steel shackles for added protection from cutting and sawing
- 5-pin cylinder for maximum pick resistance

Security Series™ 590 - Solid brass pin tumbler (non-rekeyable)

- Shrouded shackle for superior cut resistance
- Solid brass body resists rust and corrosion
- 4-pin cylinder for extra pick resistance

Safety Series™ 6835 - High visibility aluminum body in various colors

- 1-9/16" (40mm) wide aluminum body
- Hardened steel shackle for extra cut resistance
- Removable cylinder can be replaced or repinned
- 5-spool pin tumbler cylinder for added pick resistance
- Powder-coated finish lasts longer than anodized
- Custom laser engraving available
- Keyed alike feature

Also of mention is that Master Lock® now offers a Titanium series™ that has some really great features for high security areas: Reinforced for extreme strength, no rust lifetime guarantee, fully shielded and hardened steel shackle offers extreme cut and pry resistance, weather tough patented sliding keyway cover keeps dirt and grime from jamming the lock, scratch proof and durable ABS plastic bumper, and key retaining feature ensures padlock is not left unlocked. However, they are not cheap. Still, I have always believed that you get what you pay for.

Next Month: Our facility has been having problems with after-hour's vandalism; can you make any recommendations on how we can address this?

If you would like to submit a question for this column or have comments on previously published materials, please send them to AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614 Attn: Reactions/AKF

(About the Author: Since 1985 Bill has been active in the fields of science, zoology, and wildlife management. His education and experience include a B.S. in wildlife management and post-graduate studies in zoology, Lab and Museum Assistant, Shoot Team Leader, ERT Member, Large Mammal Keeper, Senior Keeper, and Zoo Curator at various zoological facilities. His area of research is crisis management in zoological institutions, which draws upon practical experience and training as a Rescue Diver, Hunter Safety Instructor, NRA Firearms Instructor, and Red Cross CPR/First Aid Instructor.)

How Maintaining Pregnancy and Lamb Growth Weights in Bighorn Sheep (*Ovis canadensis mexicana*) Led to Improved Herd Management at the Dallas Zoo

By Elizabeth A. Fischer
Dallas Zoo Dallas, TX

Introduction:

The Dallas Zoo manages a herd of one male and three female (1.3) desert bighorn sheep (*Ovis canadensis mexicana*). It would be of benefit to initiate some new approaches into the management of the herd. The objectives of the study were to gather more accurate data on fetal growth and lamb growth for bighorn and to improve interactions between herd members and keeper staff. The breeding female Alfalfa was weighed monthly and later once a week in order to monitor her weight during pregnancy. There is data available on post-parturition weight on dams and lambs (Hansen and Deming, 1980), but not much data available on fetal growth rates. There were three possible problems following lambing: would the dam step on the scale again, would she allow the lamb to step on the scale, and would the lamb step on the scale? I believed all three could be overcome with some creativity, time and patience (Robertia et al., 2000).

In order to achieve the second objective, the herd was examined visually and perhaps tactually if the need arose (i.e. injuries, fur loss etc.) On an average day, I might enter the bighorn exhibit four to five times depending on the weighing schedule. Prior to the study, the only tactile animal was Elizabeth. Spanky, and one of the females, Alfalfa, would occasionally take alfalfa out of a keeper's hand. Elizabeth would routinely approach keepers for attention (i.e. head scratching, body rubbing). The only way Rye would consume alfalfa in the food bowl was if the keeper was 6.1- 9.1 m (20-30 ft.) away. Offering only alfalfa was discussed with my supervisor and the staff veterinarian. It was determined that another diet item should be offered since too much alfalfa could cause excessive weight gain. Carrots were agreed upon as a healthy option. This goal would allow keeper and veterinary staff to interact more closely with the animals whenever necessary without stressing the staff or the animals.

General Information and History:

Gestation is approximately 173 (Byers and Hogg, 1995) to 180 days (Hansen and Deming, 1980), but can be as little as 150 days (Nowak, 1991). Offspring are usually born in spring, (typically January to April) and weigh about 2.7- 5 kg (6-11 lbs.) (Geist, 1971). Rut is in the fall and with the Dallas Zoo's herd starts in October/early November. During this time Spanky courts Alfalfa. Alfalfa is the active breeding female for the herd and has produced four surviving offspring at the Dallas Zoo. Females Elizabeth and Rye have contraceptive implants because Spanky is Elizabeth's sire and Rye is a different subspecies of bighorn (*Ovis canadensis nelsonii*). Table 1 describes the Dallas Zoo's bighorn sheep herd in further detail.

Table 1. The Dallas Zoo's bighorn sheep herd

Sex	Name/ ISIS	Birth Date	Comments
1.0	Spanky/ 938190	27-2-91	reproductive male, sire of Elizabeth and Patricia, semi-social with keepers
0.1	Alfalfa/ 927962	26-3-90	reproductive female, dam of Elizabeth and Patricia, semi-social with keepers
0.1	Elizabeth/97B681	21-4-97	contraceptive implant, offspring of Spanky and Alfalfa, social with keepers
0.1	Rye/948854	18-4-92	contraceptive implant, non - relative subspecies, skittish, non-social with keepers
0.1	Patricia/02E322	1-5-02	lamb, offspring of Spanky and Alfalfa

Materials and Methods for Goal 1:

To acquire weights during pregnancy, post-parturition on Alfalfa and the lamb's first six months, I used a platform on exhibit between two railroad ties that were stationed in the exhibit. The railroad ties were an environmental prompt. An environmental prompt involves adding or removing a stimulus to increase the likelihood of getting a correct response (Burch & Baily, 1999). The railroad ties aligned the animals in a specific area, but also prevented them from gaining access to the feed bowls from outside the railroad ties. The platform (50.8 cm x 127 cm plywood painted slate color) was a replica of the scale that would be substituted for actual weighing. It was constructed using 1.91cm (3/4") sheets of plywood set on a base frame of three evenly spaced 5.08 cm x 10.16cm (2' x 4') boards that run lengthwise on the underside of the platform (Robertia et al., 2000).

Three days before weighing was scheduled to take place a food bowl was placed at the top of the platform to encourage Alfalfa to walk onto the scale platform. Food offered was either alfalfa, carrots, or grain depending on her preference that day. If Alfalfa wanted to eat the treat she had to step on the platform to access the bowl. All herd members were scale-trained, but there was no specific sequence the animals followed during weighing. Collecting Alfalfa's weight was opportunistic in regard to whether she would step on the scale. The scale platform was only wide enough for one animal at a time which allowed me to collect weights on a specific animal.

The scale used was a Weigh-Tronix Alley Weigh™ scale with the Model 615 digital indicator not attached. The deck dimensions are 50.8 cm x 127 cm (20" x 50"), the overall height is 3.94 cm (1.75"), and the entire scale only weighs 121kg (55lbs.). The scale capacity is 2200 kg (1,000 lbs.). The scale features a non-skid, granular surface to prevent slips and fall. There are adjustable footpads that can be adjusted to compensate for uneven surfaces. A 2.13 m (7') cable connects the scale to the indicator (Robertia et al., 2000). See figure 1 for weighing set-up.

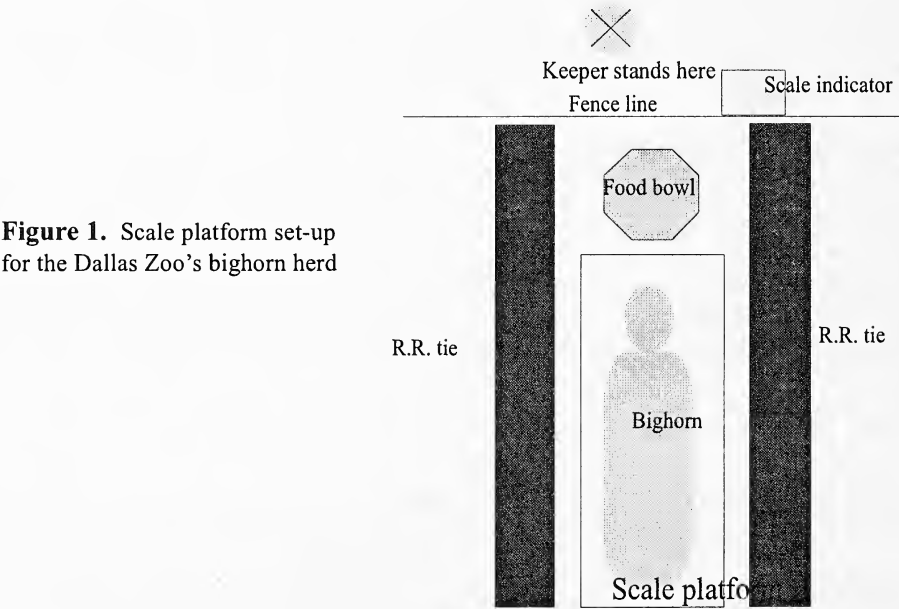


Figure 1. Scale platform set-up for the Dallas Zoo's bighorn herd

The study started in October 2001 and continued through 18 March 2002 with weights taken monthly. Weekly weights were taken from 26 March 2001 till 30 September 2002. The lamb was born 1 May 2002 and was weighed three days later. Within one week (7 May 2002) of birth I was able to continue weighing the bighorn herd. Weekly weights continued until the end of September 2002. The complete data set was collected from October 2001 until November 2002. Weighing occurred with the animals' participation only. Each animal was given five to ten minutes to step on the scale for weight. If they did not cooperate in that time frame the data was labeled "no participation".

Data:

Dam's Weight by Month (October 2001- March 2002)

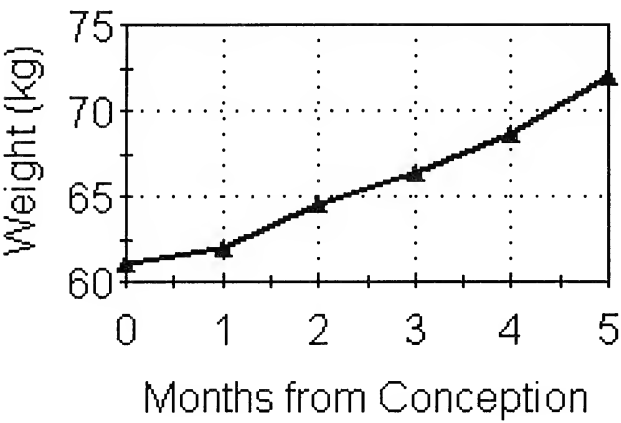


Figure 2 shows dam's (Alfalfa) weight by month from conception to lamb's (Patricia) birth.

Dam's Weight Gain by Month (October 2001- March 2002)

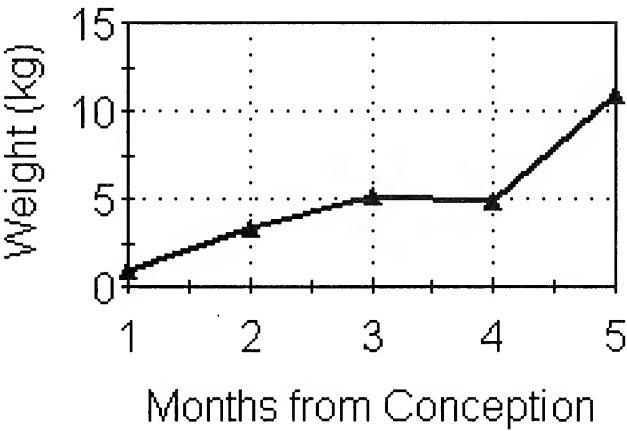


Figure 3 shows Alfalfa's weight gain by month from October 2001-March 2002.

Dam's Weight Change by Month (October 2001-March 2002)

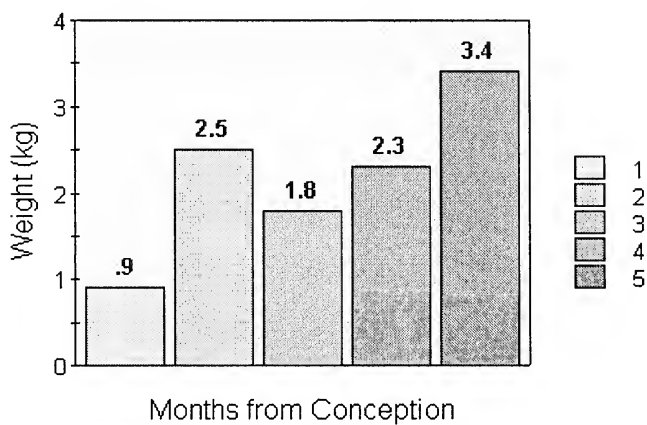


Figure 4. Dam's (Alfalfa) Weight Change/ Month (October 2001-March 2002)

Dam's Weight by Week (March 2002-April 2002)

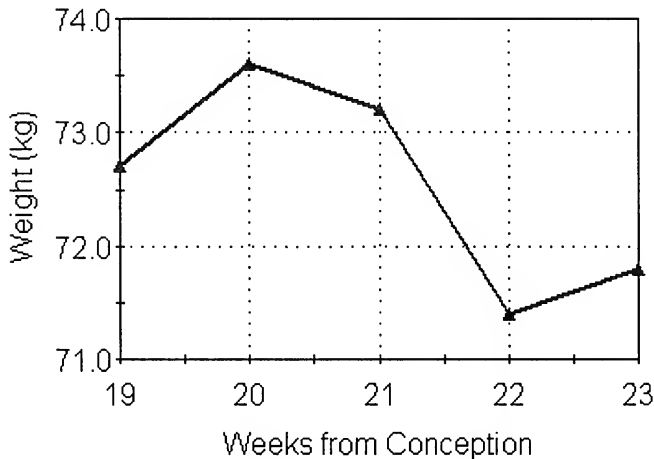


Figure 5. Dam's weight by week from March 2002-April 2002.

Dam's Total Weight Gain by Week (March 2002- April 2002)

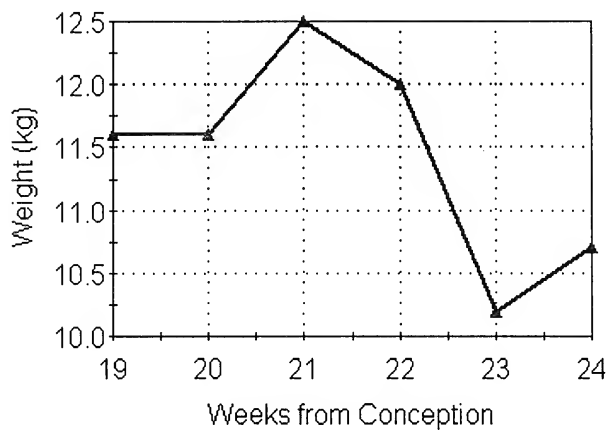


Figure 6. Dam's total weight gain by week from March 2002- April 2002.

Dam's Weight Change by Week (March 2002-April 2002)

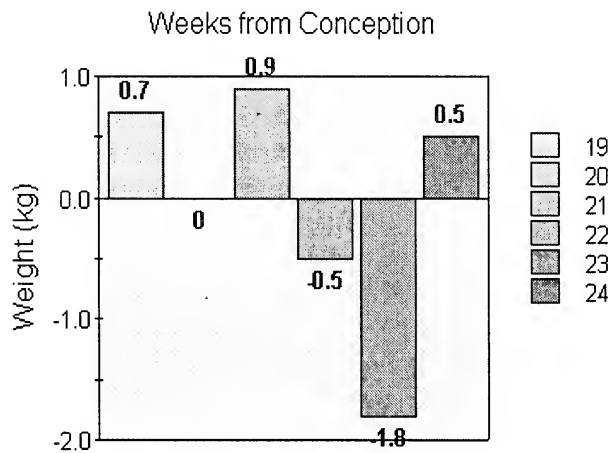


Figure 7. Dam's weight change by week from March 2002- April 2002.

A captive female lamb's weight data from a study by Charles G. Hansen and O.V. Deming (1980) was compared to the Dallas Zoo bighorn lamb's (Patricia) weight data from May 2002- November 2002 (week 0- week 24) in Fig. 8

Comparison of Observed Animal (Patricia) and a Female Desert Bighorn Sheep Lamb from Hanson and Deming, 1980

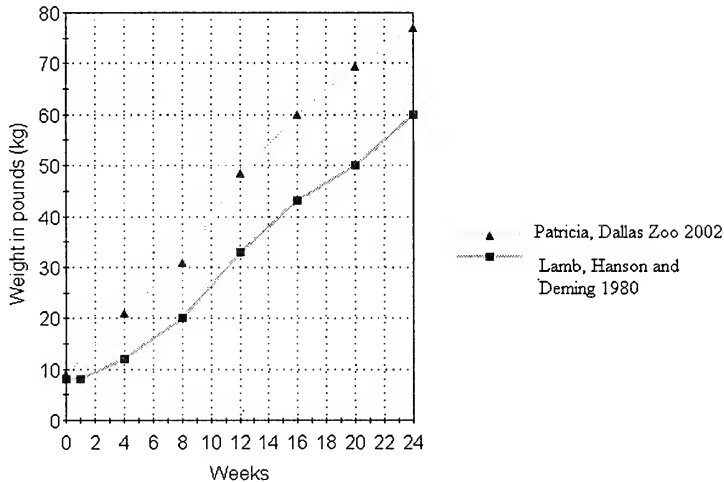


Figure 8. Comparison of Observed Animal (Patricia) and a Female Desert Bighorn Sheep Lamb from Hanson and Deming, 1980.

Lamb's Weight by Week (May 2002- November 2002)

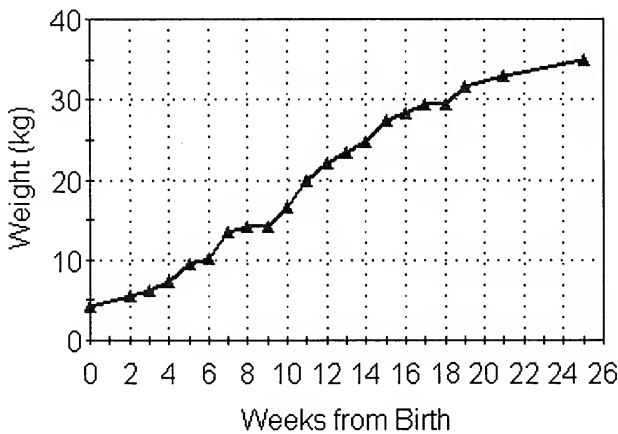


Figure 9. Lamb's weight by week from May 2002- November 2002.

Figure's 10 and 11 show respectively Patricia's weight gain by week from birth and weight change by week for the lamb's first six months.

Lamb's Weight Gain by Week (May 2002- November 2002)

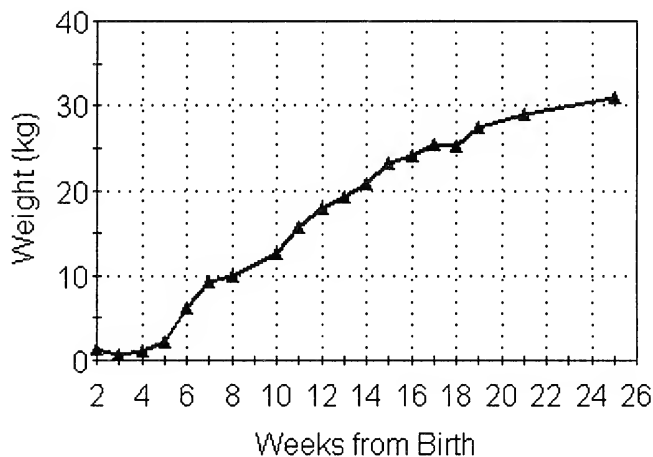


Figure 10. Lamb's (Patricia) Weight Gain by Week (May 2002-November 2002)

Lamb's Weight Change by Week (May 2002- November 2002)

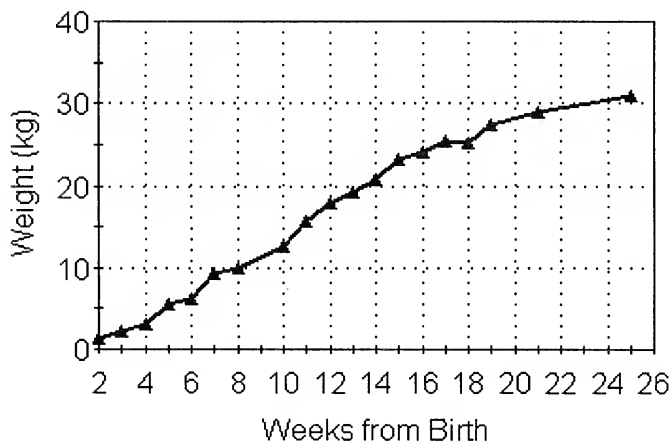


Figure 11. Lamb's (Patricia) Weight Change by Week (May 2002- November 2002)

RESULTS FOR PRIMARY GOAL

The dam would not approach the scale with the lamb for the first week (3 May 2002). This week's weight was acquired by manual restraint during a well baby exam. The next week (14 May 2002) produced different results. The dam did approach and stepped on the scale to be weighed. The lamb also approached, but did not step on the scale. The next attempt (17 May 2002) was a complete success for both animals. Patricia's weight was attempted (scale platform was placed in the yard for weighing) 22 times. Between May 2002 and November 2002, 21 of 22 attempts resulted in obtaining a weight. At week four Patricia was 4.1 kg (9 lbs.) more than the average female lamb (Hanson and Deming, 1980). At week 16 Patricia was 7.7 kg (17 lbs.) more than the average female lamb (Hanson and Deming, 1980). At week 24 Patricia remained 7.7 kg (17 lbs.) more than the average female lamb (Hanson and Deming, 1980).

From October 2001 to November 2002 Alfalfa's weight was collected 24 of 31 attempts. Alfalfa gained a total of 10.6 kg (23.5 lbs.) [seen in Figure 4] during pregnancy and returned to her pre-conception weight two months post-parturition.

Discussion for Primary Goal:

The results were two-fold for this part of the study. I was able to acquire weekly weights on Alfalfa during her pregnancy. Also more detailed data on pregnancy weight gain/loss and a lamb's first six months of weight growth was obtained for captive bighorn. Some of the weight gain during pregnancy could be attributed to diet. The herd members were offered one quart of Mazuri® ADF 25 each, free choice coastal hay, browse, and carrots and alfalfa as rewards. Bighorns have been observed eating grass between 2 and 5 weeks of age depending on the milk supply of their mother (Shackleton, 1973). Patricia was observed eating grain for the first time on 16 May 2001 (approx. two weeks old). Patricia, as can be seen in Figure 2, weighs more than the Hansen and Deming, (1980) lamb.

There are many possibilities as to why she weighs more. She was a voracious eater for all items offered (grain, carrots, alfalfa, browse). She was an active lamb, but she did spend much of her day resting (approximately six hours out of the keeper's eight-hour observation window). The change in pregnancy weight can be used to estimate fetal growth rate for future lambs in the Dallas Zoo herd. Also weekly weights collected on the lamb may help maintain future lamb health post-parturition. This study may assist other institutions with their herd management in tracking dam and lamb weight changes in a successful pregnancy.

Methods for Secondary Goal:

To accomplish my second goal of improving interactions between keepers and the herd I attempted to approach the herd after weighing for closer interaction. I tried carrots as a reward for allowing close keeper proximity. With carrots in hand I wanted to be able to attract Alfalfa and Spanky so they would eat the treat from the ground near me. With Rye, I planned to gradually approach with carrots as a reward for allowing the interaction. I hoped Alfalfa would in time accept a handful of carrot pieces from my hand. Initially I planned to be able to touch Alfalfa and eventually be able to brush her while feeding her carrots.

Results Primary Goal:

Within three days all members of the herd other than Elizabeth ravenously consumed the carrots. Elizabeth never would reliably consume them, so I used alfalfa as her reward. I was able to attract Alfalfa and Spanky to me also, though this took a few months (October 2001- February 2002) to accomplish. Rye would not approach for the first few months. Starting in March 2002 (after five months) there was change in the herd behavior. Alfalfa accepted a handful of carrot pieces from my hand. Spanky and Rye still kept their distance from me. The flight distance for Rye was now only about four or five feet instead of the original 6.1 – 9.1m (20-30 ft). In March 2002 Alfalfa allowed me to touch her head followed by a carrot reward. By the second week of March 2002 I was able to rub Alfalfa's entire body. The last week of March 2002 a brush was introduced with success. All

behaviors were maintained until the birth of the lamb. Within three weeks of the lamb's birth, I touched Patricia's head. Patricia was seven weeks old when she first allowed a full body touching on 18 June 2001. By the end of June 2002 Patricia would approach keepers readily and accepted full body rubs with hands and a brush. I also was able to lift up Patricia's feet to check hoof development and check her abdomen sight and touch.

Discussion Secondary Goal:

The second goal was to increase interaction between herd members and keeper staff at the Dallas Zoo. Alfalfa and Patricia allowed complete body touching without restraint. Both animals could be easily examined by keepers or veterinary staff if the need arose. Rye became less skittish around people and much more approachable. Since I was now able to be within a few feet of Rye, I was able to examine her body closely for possible injuries or other health problems. Spanky and Elizabeth did not change their established behaviors. We did not want Spanky to become too acclimated with keeper proximity due to a bighorn ram's potential for aggressiveness towards keepers reported in other zoos. By the end of this study Rye had just started to take a few pieces of carrot from my hand. My second goal was accomplished in the fact that the overall interaction between the herd and the keeper staff was improved. Animals that were once skittish and allowed little contact now were either touchable or at the very least approachable.

Tracy Johnson has continued training the herd by habituating Spanky, Alfalfa, Elizabeth, and Patricia to being locked in daily for feeding and captures. Keeper staff is able to treat Alfalfa, Elizabeth, and Patricia for Dermatitis.

Conclusion:

Weights were collected reliably to document the dam's weight change during pregnancy, postparturition, and the first six months of lamb growth. The secondary goal also had positive results. Animals that previously were untouchable now could be approached and manipulated for daily husbandry management, and medical treatment. The third benefit to this part of the study was that all of the herd was more likely to participate in weighing. A complete surprise benefit was that the study took place within public view so visitors were able to ask questions about the training. Hopefully, this increased their knowledge and understanding for bighorn sheep.

Hopefully this data will be useful as a reference source for other zoological institutions in their management of captive desert bighorn sheep. With the help of other institutions, a sufficient sample size could be met to produce valuable data for the bighorn species. The data could be used to develop growth curves for captive desert bighorn sheep, and promote non-invasive techniques for achieving them.

Acknowledgements

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Products Mentioned in the Text

Weigh-Tronix® scale:
manufactured by Weigh-Tronix, Inc.
1000 Armstrong Dr.
Fairmont, MN.
56031-1000 USA.

Mazuri® ADF # 25 Herbivore
PMI Nutritional International
P.O. Box 66812
St. Louis, MO.
63166-6812 USA.



Artist: Randell Herren

International Primate Rescue for Homeless Primates

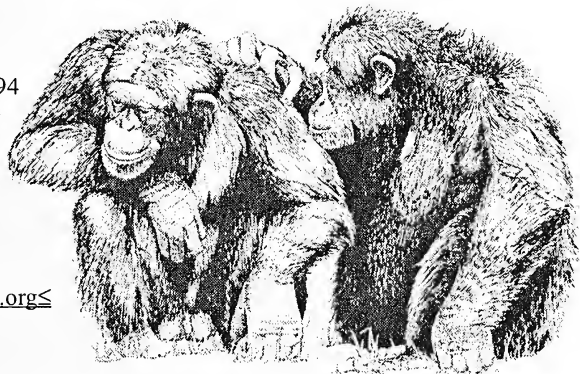
International Primate Rescue, founded in March 1996 in Polokwane, South Africa has plans to expand its current sanctuary facilities. The expansions include plans to accept great apes such as chimpanzees and retired or surplus laboratory primates. The sanctuary currently houses over 50 rescued exotic primates and wherever possible will transport any species of primate from any country to its facilities.

The aim is to expand the current sanctuary by purchasing land in the charity name and building large natural enclosures. When complete, it will house up to 200 primates exotic to South Africa who are damaged beyond release back into the wild. The new enclosures will be designed to provide the primates with a natural, almost free-ranging situation while allowing the care or supervision which some may require. Some of the monkeys currently at the sanctuary had never lived outside or even seen a tree, let alone sat in one. The sanctuary primates are encouraged to engage in natural behavior activities such as socializing and foraging. Infants received are placed with a foster monkey family as early as possible to ensure that they learn the correct behavior patterns necessary for normal development.

All indigenous primates received (Vervet Monkeys and Baboons) are sent on to rehabilitation centers to be returned to the wild. On completion of the building, the current sanctuary primates will be relocated to the new facilities. The property for the new sanctuary will be purchased in Pretoria, South Africa. Being closer to an international airport will give greater accessibility and make the collection of international rescues and volunteer workers easier. The current international volunteer workers program will also be extended to house more than one volunteer at a time. Volunteer workers from UK, USA, The Netherlands, Denmark and New Zealand have visited the sanctuary. This provides an opportunity for observational studies while helping care for and monitor the primates, many of whom arrive with disorders or behavioral problems and need to be socialized and rehabilitated.

The sanctuary is not open to the public. Monkeys undergoing rehabilitation need to be kept in a very quiet, stress-free environment and have too many people around could interrupt the process. Supporters may visit by appointment only and visits are supervised. Fundraising committees are currently being recruited in the UK and will be extended to the USA in the future. The fundraising committees will help secure the funds required to build the sanctuary in South Africa and maintain it thereafter.

For more information please
contact: Sue Gale (UK) 01306 640 294
or mobile 078 1779 0573 - email:
sgipr@aol.com Pauline@Sher.co.za (South
Africa) 015 295-7849 or
mobile 082 353 1837 -
email: sgmwf@yebo.co.za
Website:
<http://www.internationalprimaterescue.org>



--from ZooNews Digest

Legislative/Conservation Update

Compiled by Georgann Johnston
Legislative Advisor
Sacramento, CA



Kenya Hunting Legalization Vetoes

The February 2005 issue of AKF included a notice regarding the imminent overturning of a hunting ban in Kenya. Fortunately, this disaster was narrowly averted on 31 December 2004 when President Kibaki of Kenya publically declined to allow enactment of the bill passed by Kenya's Parliament earlier that month. The bill was introduced in early 2004 as a measure to compensate farmers and others for harm incurred by wildlife. Opponents of the bill said it "was sneaked through Parliament through the back door" when many members were absent from the house. Opponents said the compensation aspects of the bill were a thin disguise for the central purpose of the bill which would have allowed Kenyan landowners to operate hunting ranches similar to those in Zimbabwe, South Africa, Zambia, Mozambique and Tanzania.

Many of the landowners who wanted to introduce hunting already raise wildlife for tourist viewing. They have drawn support from subsistence farmers whose crops, homes and lives are often jeopardized by rampaging animals including elephants, leopards, lions and baboons. The farmers have usually blamed the Kenyan Wildlife Service for failing to control the animals. After years of efforts to reinforce national park boundaries to keep animals in, the Kenyan government has become increasingly aware that many depredations can be attributed to the wildlife ranchers.

The bill had advanced rapidly through Parliament after the acting Minister of Tourism and Wildlife (MTW) dismissed the entire Kenya Wildlife Service board of directors for the second time in two years. President Kibaki vetoed the bill nine days after the tenth KWS director in only 12 years was appointed by the acting MTW. *Source: Animal People News January/February 2005*

USFWS Announces \$62 Million in Grants to States to Support Wildlife and Habitats

The USFWS recently announced more than \$62 million in wildlife grants to State and Territorial wildlife agencies. The State Wildlife Grants are designed to assist State-specific programs that benefit declining wildlife and their habitat. The Grants are funded under the 2005 Interior Department Appropriations Act.

Some examples of ongoing State Wildlife Grant projects include: (1) The Nebraska Game and Parks Commission is restoring 90 acres of tallgrass prairie and 70 acres of wheatgrass playa grassland on existing wildlife management areas in the Rainwater Basin of south-central Nebraska. These plant communities will provide important habitat for an array of sensitive prairie species. (2) The New Mexico Game and Fish Department is determining the population numbers and trends of flammulated owls. Data resulting from this project will help resource managers make informed decisions about land management actions affecting these birds. (3) Illinois is partnering with the City of Chicago to purchase 102 acres at Hegewisch marsh. The new acquisition provides optimum nesting habitat for the little blue heron, yellow-headed blackbird, pied-billed grebe, and common moorhen. (4) The Maryland Department of Natural Resources is gathering wild Atlantic sturgeon from the Delaware River to analyze genetic profiles in an effort to restore this species.

States may use the funds for either planning or project implementation activities. Generally, the apportionment is based on a formula that uses each State's land area and population. To access a complete list of grants by State, please visit: <http://federalaid.fws.gov>. *Source: USFWS Press Release 4 March 2005*

Bill to Halt Wild Horse Slaughter Introduced to Congress

A bill to restore to wild equines the full protection extended by the 1971 Wild and Free-Roaming Horse and Burro Protection Act was introduced to Congress in late January. HR 297 would repeal a stealth rider, called the "Burns Amendment" attached to the Consolidated Appropriations Act passed by Congress in November 2004. Proponents of HR 297 say that if allowed to stand, the Burns amendment will allow for slaughter of thousands of wild horses for human consumption abroad.

Essentially, the Burns amendment directs the U.S. Bureau of Land Management to make “available for sale without limitation any captive wild horse who is more than 10 years old or who has been offered for adoption at least three times.” This means that most of the 14,000 wild horses now held by the BLM may be sold for slaughter. *Source: Animal People News January/February 2005*

New York City First to Crack Down on Sale of Endangered Species

New York City has become the first municipality in the U.S. to pass a law making it illegal to buy or sell products containing, or advertised as containing, endangered species. The law was enacted following an undercover investigation of NYC’s traditional medicine shops last spring by TRAFFIC à a branch of the World Wildlife Fund. The investigation found illegal products widely available claiming to contain endangered species including tigers, rhinos, leopards and musk deer.

Though federal legislation like the Endangered Species Act makes interstate commerce of endangered speciesÇ products illegal, it does not apply to sales within a city. The new law would close local loopholes in NYC law by making such conduct inside the city limits illegal and allowing officials the authority to take action. The bill meets an important need in the global effort to combat illegal wildlife trade. *Source: The TRAFFIC Report; a publication of TRAFFIC North America, December 2004*

Simplified Falconry Regulations Proposed

The USFWS is proposing a number of changes in falconry regulations. The changes will simplify and update the agency’s regulations to reflect current practices in the traditional use of raptors for sport hunting. “Falconers care deeply about wild raptors and have been very interested in their preservation across the country,” said Service Director Steve Williams. “At the request of State fish and wildlife agencies and falconers nationwide, the Service proposes to streamline the permitting process for falconers and clarify what are acceptable falconry practices.”

The proposed changes to falconry regulations include: (1) Eliminating the federal permit in favor of State or Tribal falconry permits; (2) Transferring permitting of falconry activities with golden eagles to the States; (3) Establishing electronic reporting of acquisition, transfer or loss of raptors held for falconry, to replace the current paper reporting system; and (4) Allowing experienced falconers to assist Federal and State-permitted wildlife rehabilitators in conditioning raptors for release to the wild.

Under the proposal, after the final rule on the regulations is published, the States will have five years to change their regulations, if needed, to come into compliance with the new Federal regulations. Many States will not need that long to comply with the new regulations. *Source: USFWS Press Release 15 February 2005*

China Makes Remarkable Achievements in Asian Elephant Protection

A delegation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) recently completed a visit to China, during which they investigated the protection of Asian elephants and trade of ivory in China. The delegation came to the conclusion that China had made great efforts at protecting Asian elephant population and habitats, standardizing the management of ivory processing and trade, severely cracking down on illegal smuggling and trade of ivory etc. and had achieved positive results.

The delegation went to Beijing, Shanghai, Hangzhou and Guangzhou to inspect the protection of Asian elephant and the management of ivory procession and trade in China. It believes that relevant laws and regulations are perfecting that protection, and management and law enforcement systems are improving. In particular, some systems have met the requirements of relevant decisions of the CITES such as site-specific procession, distribution and uniform labeling of ivory products introduced to standardize the management of ivory procession and trade, as well as the database information system established to keep track of and manage the storage and consumption of ivory materials. In some areas stricter requirements than those of the Convention were made, which indicates the clear stand and position of the Chinese government to be responsible for the protection of international endangered species.

Officials with the State Forestry Administration said China would further improve on protection, management and law enforcement measures to ensure the consolidation and expansion of achievements already made, to earnestly carry out international conventions while maintaining the sustainable development of China’s traditional craft in ivory sculpture. *Source: People’s Daily Online 3-21-05*

Confiscated Chimpanzees in Kenya Transferred to Sweetwaters

Five infant chimpanzees (*Pan troglodytes*) that were confiscated at the Nairobi airport on 31 January have been permanently transferred to the Sweetwaters Chimpanzee Sanctuary near Mount Kenya. The 2.3 chimpanzees were being smuggled across Africa when alert customs officials at the Jomo Kenyatta International Airport became suspicious of sounds coming from a small crate that was registered as carrying dogs. Inside, they found six infant chimpanzees (one soon died) and four guenon monkeys. The chimpanzees were transported to Sweetwaters on 5 March. The guenons remain in the care of the Kenya Wildlife Service (KWS). The chimpanzees are all believed to be less than 18 months old and will require round-the-clock care for the next few months to recover their health, according to Sweetwaters manager Annie Olivecrona. "Some of them were in a pretty terrible state," she said.

Sweetwaters provides permanent care and refuge for 39 chimpanzees. The sanctuary was founded in 1994 and is a charter member of the Pan African Sanctuaries Alliance (PASA), P.O. Box 351651 Los Angeles, CA 90035; website - <http://www.panafricanprimates.org> Source: ZooNews Digest

African Sanctuary Records First Birth of Endangered Bonobo

The Lola ya Bonobo Sanctuary has recorded the first birth of a highly endangered bonobo (*Pan paniscus*), 11 years after the orphanage was established in the Democratic Republic of Congo. The infant, a male, was named "Mbano ya Lola," which means 'gift of the sky' in the local Lingala language.

Lola ya Bonobo is the only sanctuary in the world dedicated to the conservation and welfare of the bonobo, one of the four great apes that is often referred to as a pygmy chimpanzee. Bonobos are found in the wild only in the Democratic Republic of Congo, and hunting and deforestation have caused their numbers to dwindle to less than 20,000. Without strict protection, most experts believe that bonobos will become extinct in the wild within 25 years.

Lola ya Bonobo currently cares for 41 bonobos at its facility in Kinshasa, all of whom were confiscated from poachers, zoos, research facilities or illegal traders. The sanctuary is a charter member of the Pan African Sanctuaries Alliance (PASA), the organization of primate refuges in Africa that was formed in 2000 and currently covers 12 countries. For more information, please visit <http://bonoboducongo.free.fr/us/frameus.htm> or <http://www.panafricanprimates.org> Source: ZooNews Digest

World List of Species Reaches Half-million Mark

A team of scientists meeting in Malta have celebrated reaching the half-million mark in the compilation of a complete catalogue of the world's fauna and flora that will eventually contain an estimated 1.7 million species. The databases are being coordinated by the Species 2000 Catalogue of Life programme, which is funded by the European Commission. Frank A. Bisby, a professor at the University of Reading in the UK, is executive director of the global programme.

When people started to worry about biodiversity and conservation they found to their surprise that there was no master list of the world's plants, animals and microbes, he told the gathering of scientists. People did compile databases but they were either local, dealing with a country or a region, or they tended to be of one group of organisms for the whole world.

"Our enterprise is to create a single catalogue of all species of plants, animals and microbes that are known on earth. There is no comprehensive catalogue with all 1.7 million species that we think have been named and catalogued," Prof. Bisby said.

The Species 2000 project, in conjunction with partners in the US called ITES (Integrated Taxonomic Information System), is not intended to create a single database. It is meant to create a virtual catalogue on the Internet with the pieces taken from many databases - a federation of databases. Species 2000 is a three-year project that will be completed next January, forming the European component of this global programme. The chief users of these databases will be professionals not just in biology but also in agriculture, forestry, environment, land use, population change analysis and conservation analysis. Every year, Species 2000 distributes an edition of its catalogue on CD free of charge. See www.sp2000.org Source: ZooNews Digest

Detroit Zoo's Aging Elephants California-bound

Wanda and Winky, two aging elephants left the Detroit Zoo and are headed for the Performing Animal Welfare Society sanctuary near Sacramento. The 2,300-mile trek in a retrofitted moving van was expected to take 52 hours.

Wanda, 46, and Winky, 51, have been on a new, more aggressive regimen of anti-inflammatory drugs for two weeks. Wanda, whose arthritis is more severe than Winky's, will be able to take weight off her hindquarters by sitting on custom-made barriers.

"Elephants really don't thrive in this kind of environment," zoo director Ron Kagan told The Detroit News. "The sanctuary's physical and social environment is so far superior than what we can provide here." The elephants' toys, a cache of treats and stash of hay were shipped to the sanctuary earlier, Kagan said.

Upon arriving at the 100-acre Performing Animal Welfare Society grounds in Galt, Calif., they will enter the elephant barn. Sanctuary workers hope to introduce them within hours to the society's three other Asian elephants. A fence will separate them. It will take days or even weeks of acclimatization before they are released into the herd.

Kagan decided against sending Wanda and Winky to a closer sanctuary in Tennessee. He said the University of California, Davis would provide better veterinary care.

The zoo waged a lengthy battle with the American Zoo and Aquarium Association over the placement of the elephants. The association wanted the pair sent to the Columbus Zoo and Aquarium, while Kagan favored a sanctuary with more room and moderate climate. *Source: Detroit Free Press 4-6-05*

Test Tube Gorilla Not Bonding With Newborn

The world's first test tube gorilla is not bonding with her new daughter, Timu, a nine-year-old Western lowland gorilla, took care of her newborn for a few hours after its birth, but then lost interest, said Dr. Lee Simmons, Director of the Henry Doorly Zoo in Omaha, NE. Timu was hand-raised, which makes it hard for her to bond with her offspring, Simmons said. Simmons said he does not know of any other successful attempt to create a test tube gorilla.

The baby will be hand-raised and given to a surrogate gorilla mother in hopes that Timu will learn from watching that relationship and will be a better mother when she has another baby, Simmons said. The surrogate mother is expected to be Rosie, the gorilla who gave birth to Timu in 1996 through in vitro fertilization, Simmons said. Timu also failed to bond with her first baby, Bambino, who was born at the zoo in August 2003. That baby also had to be hand-raised. See Henry Doorly Zoo:<http://www.omahazoo.com/> *Source: ZooNews Digest 4-9-05*

Congress Awards ISIS \$500,000 to Develop Global Animal Information System

The U.S. Congress has directed \$500,000 to the International Species Information System (ISIS) for the development of its Zoological Information Management System (ZIMS). The funds are part of the \$338 billion federal funding bill signed in December by President Bush. ZIMS, a web-based international database, is being developed with the cooperation of 500 experts from the worldwide zoological community. ISIS is a network of 640 zoological institutions in 71 countries, including more than 250 zoos in the U.S. When complete, ISIS' new ZIMS will contain accurate comprehensive information on two million animals and will improve animal care in the U.S. and worldwide.

ZIMS has great potential for tracking new and emerging diseases in animals which will assist in protecting animal health and it also has important public health implications. The project, scheduled for completion in mid-2006, is receiving its funding through the Centers for Disease Control and Prevention (CDC).

This funding will help ISIS meet its capital funding goal of \$10 million for this project. ISIS has also secured a \$300,000 grant from the U.S. National Science Foundation; \$500,000 through a National Leadership Grant from the Institute of Museum and Library Services (IMLS); and \$4 million from 133 members of the worldwide zoological community. *Source: AZA Communiqué*

Institutions wishing to advertise employment opportunities are asked to send pertinent data by the 10th of each month to: Opportunity Knocks/AKF, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054. Please include closing date for positions available, and when setting these dates keep in mind that because of bulk-mail, most readers do not receive their AKF until the middle of the month or later. There is no charge for this service and fax or e-mail listings of positions which become available close to deadline are accepted. Our Fax is (785) 273-1980; e-mail: akfeditor@zk.kscocmail.com< Listing must be sent as MS Word attachment. To post a position on the AAZK website, have listing to email address above by the 25th of the month for posting on the first day of the following month. We are no longer located at the Topeka Zoo, so please note new address to avoid delays in processing.

General Curator – Large Southern California Wildlife Facility

Please email resumé and salary requirements to: icarefortheanimals@msn.com

Position Description: Duties include, but are not limited to, assist Animal Director and Director of Operations in the development and implementation of protocols; procedures; schedule, assign and direct all animal care staff; manage all aspects of animal care including husbandry, training, enrichment, cage maintenance and enhancement; review, hire and supervise the training of new keepers. This position may involve a high paced atmosphere **Educational Requirements:** Bachelor's degree in zoology, biology or related field. **Experience:** Demonstrate a history of a minimum of five (5) years experience in the husbandry of exotic species with special regard to carnivores, birds and primates. Successful candidate will possess a minimum of two (2) years experience in a management capacity. **Knowledge, Skills and Abilities:** Understanding of animals and their characteristics, habits and basic health knowledge; a proven record of animal husbandry, enrichment and operant conditioning; working knowledge of animal record keeping systems; knowledge and experience with regulatory agencies; supervise an animal care staff of fifty; work within the required budget; work effectively and harmoniously with staff; current TB test and tetanus shot; the ability to lift 80 lbs.

Keeper: Mammals, Pachyderm/Hooved Stock - Memphis Zoo, Memphis, TN

Applications are available from the Zoo receptionist in the Administration Building or may be downloaded from our website (www.memphiszoo.org). Applications may be submitted to the receptionist or mailed to Human Resources, Memphis Zoo, 2000 Prentiss Place, Memphis, TN 38112. Applicants may wish to attach a cover letter, resume and professional references to the application. No walk-in interviews will be granted, nor will telephone calls or e-mail be accepted. We have an opening for a Keeper in our Pachyderm/Hooved Stock area. **Requirements:** This position requires a minimum of two (2) years of experience in exotic animal care, including one to two years of experience in a protected contact environment with elephants, and a college degree in zoology, biology or a related field (or the equivalent combination of education and experience). Prefer significant experience with operant conditioning. Must have excellent communication skills and a willingness to interact positively with the public and Zoo staff. Must be able to pass a criminal background check and pre-employment drug screen. **Responsibilities:** include providing a healthy, attractive environment for the animals in a specified area, all aspects of daily animal husbandry, exhibit maintenance, observation, enrichment, and encouragement of public interest in the animals. The Memphis Zoo offers a competitive salary and benefits package. EOE

Tiger Trainer Position - Six Flags Great Adventure, Jackson, NJ

Applicants should submit cover letter and resumé, professional letter of recommendation, and non-returnable full body photograph to: Six Flags Great Adventure, ATTN: Human Resources, P.O. Box 120, Jackson, NJ 08527; Or Fax to 732-928-6779. **Posting is open until position is filled.** Six Flags Great Adventure's Temple of the Tiger has an immediate opening for a fulltime year-round Tiger Trainer Position. Six Flags Great Adventure provides our guests with a unique free-contact educational presentation showcasing the tiger's awesome capabilities. Temple of the Tiger plays a leading role in interactive education by promoting the conservation of these amazing animals. **Requirements:** A college degree in a related field (zoology, psychology, biology, etc.) is preferred as well as big cat experience. Working in and around water depths of up to 5ft. is also required. The chosen applicant must possess strong verbal, cognitive, and physical skills to be part of this unique trade. Dedication, enthusiasm, and teamwork are essential elements to this program. Six Flags offers great benefits and competitive wages. Six Flags is an Equal Opportunity Employer and Drug Free Workplace

Chimpanzee Caregiver - Wildlife WayStation, Angeles National Forest, CA

Has an immediate opening for a full-time chimpanzee caregiver. Interested/qualified parties should submit a cover letter, resumé and references by e-mail only to martine@wildlifewaystation.org. No phone calls please. **This position will be posted until filled.** **Responsibilities:** †Position involves being a member of our chimpanzee caregiver team in the daily care of 14+ social groupings of adult and juvenile chimpanzees. Duties include, but not limited to, daily cleaning of all habitats and denning areas, twice daily feedings, monitoring all animals under your purview for any physical or emotional changes on a daily basis, and assisting our enrichment supervisor in providing enrichment items required by USDA regulations. **Requirements:** Must have a minimum of one (1) year paid experience working with chimpanzees in either an educational/exhibit setting or research, as the majority of our animals are retired from government research programs. †Must be able to work weekends and holidays. †Position also involves working in all weather environments and capability to lift up to 60 pounds. †The candidate we seek must be a team player with a strong work ethic and have excellent observational skills. †Salary will be commensurate with experience.

Zookeeper(s) - Milwaukee County Zoo, Milwaukee, WI

Application and experience papers may be obtained in person at the office of the Division of Human Resources, by writing a request to the Division, by calling 414-278-4143, or by downloading from www.mcdhr.org. The Division address is Milwaukee County Department of Human Resources, Milwaukee County Courthouse, Room 210, 901 North 9th Street, Milwaukee, WI 53233. Our zoo has professional development opportunities in conservation and research and a large and diverse animal collection. Starting pay is \$33,296 annually along with a complete benefit package. **Requirements include:** Graduation from high school or G.E.D. equivalent required; college or university training in zoology or closely related field preferred; certifications, licenses, workshops, seminars, conferences and/or other courses applicable to animal management or care desirable. One (1) year of experience in the care and handling of animals, other than personal or family household pets, within the last five (5) years is required. Additional experience with a variety of non-domestic animals, animal activities, zookeeping, wildlife care or management, and other animal related activities is preferred. Experience with computers is desirable.

The following five (5) positions are available immediately and until filled at Catoctin Wildlife Preserve and Zoo, Thurmont, MD. We are looking for professionally oriented people to grow with us. Information about our facility may be viewed online at www.CWPZoo.com **Responsibilities:** Include all aspects of animal care including feeding, cleaning, observations, monitoring, interaction with the public and assistance with department improvement projects. Salary is commensurate with experience (\$17,160 to \$24,960). Support for medical, dental and prescription health care and attendance at AAZK and other conferences and seminars. Paid vacation after one year. Flexible work schedule and personal days. Send cover letter and resumé with salary requirements to: R. Hahn, Chief Animal Person, Catoctin Wildlife Preserve and Zoo, 13019 Catoctin Furnace Road, Thurmont, MD 21788 or fax at (301) 271-2673; or email Rickhahn@CWPZoo.com

Intermediate Animal Care (four positions) – Must be knowledgeable in the basic husbandry and natural history of mammals and/or birds, well organized and able to work well with all staff and visitors. Must have at least two (2) years experience. College degree a plus, but will still require hands-on experience. Must be able to lift 100 pounds and work some weekends and holidays/ Good recordkeeping skills a must. Salaried. Reports to General Curator/Registrar.

Hoofed Stock/Ratites I – Works with deer, antelope, bison, camels, llamas and domestic sheep, goats and donkeys. Also ostrich, emus, rheas and cassowary.

Avian Specialist I – Works primarily with psittacines and gallinaceous birds. Flamingos, ibis, doves, kookaburra, mud hens, condor, owl, cranes and ratites are also in collection. Knowledge of incubation and rearing chicks is required.

–Large Carnivore Caretaker II – Requires minimum three (3) years of full-time experience in an exhibition setting working with a diverse collection of large cats and bears.

Primate Animal Care II – Requires a minimum of three (3) years of full-time experience in an exhibition setting working with a diverse collection of baboons and macaques thru lemurs and callithrichidae. Must have working enrichment knowledge and experience.

Vet Tech/Swing Animal Care – Responsible for the overall health of the collection under the direction of the veterinarian of record. Works with birds, mammals and reptiles. Does routine fecal checks and vaccinations under vet's supervision. Provides nursing care for neonates and infirm. Keeps health records with assistance from Registrar. Vet tech certification required.

Environmental Interpretation and Wildlife Care Internship - Trailside Museums and Wildlife Center, Bear Mountain State Park, Bear Mountain, NY 10911-0427. Contact: Jennifer Verstraete at (914) 786-2701 ext. 278 or 265; email - elayne.keith-feller@oprhp.state.ny.us Start Dates: Summer internship mid-May through mid-August; Fall internship late-August/early September through early November. Internship is unpaid, but provides knowledge and experience; written evaluation gladly given. Possible course credit if intern can arrange it. Interns will work at least three (3) days a week, including one weekend day. No housing available. We reimburse full payment for required pre-exposure rabies series. **Qualifications:** Enthusiasm, comfortable handling animals, motivated to learn. Must be 18 or older; preference given to college student looking for experience in the care of wildlife and in environmental interpretation. **Responsibilities:** 1) Provide care for permanently injured or orphaned park wildlife (mammals, birds, fish, amphibians and reptiles) in zoo setting. Under the supervision of a Senior Zookeeper will prepare food and diets, maintain enclosures and exhibits, and provide enrichment; 2) Interact with the public answering questions, interpreting exhibits, possibly developing and offering short interpretive talks.

More Zoo vacancies can be seen by visiting:

American Zoo and Aquarium Association - Job Listings
<http://www.aza.org/JobListings/>

American Association of Zoo Keepers' - Opportunity Knocks
http://www.aazk.org/aazknew/animalKeepersForum/opportunity_knocks.asp

European Association of Zoos and Aquaria - Vacancies
<http://www.eaza.net>

Australasian Society of Zoo Keeping (ASZK)
<http://www.aszk.org.au/Zoo%20Positions%20Vacant.htm>

Berufsverband der Zootierpfleger e.V.
<http://www.zootierpflege.de/stellen/stellenzooseiten/STzoowebseiten.html>

Zoo Vets, Technicians and interns
http://www.aazv.org/job_openings.htm

Bird Jobs in the Field
<http://www.birdingonthe.net/maillinglists/BJOB.html>

If You're Moving.....

Make sure to notify AAZK National of your change of address. Don't miss a single AKF issue! Call: 1-800-242-4519 (US) or 1-800-468-1966 (Canada) or you can email: aazkoffice@zk.kscoxmail.com<

AAZK Membership Application

check here if renewal []

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Full-time Keepers

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\$35.00 Associate

*Those not connected with
an animal facility*

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Full-time Keepers

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*Those not connected with
an animal facility*

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\$65.00 or up - Individuals
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(requires Board approval)*

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Library Only

\$40.00 Library

*Available only to public
& university libraries*

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Title _____

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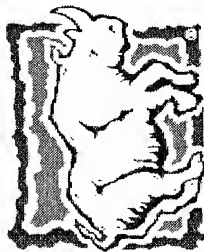
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Signature _____

Mail this application to: AAZK Administrative Offices, 3601 S.W. 29th, Suite 133 Topeka, KS 66614-2054. Make checks/money orders payable to AAZK, Inc. Must be in U. S. FUNDS ONLY. Membership includes a subscription to *Animal Keepers' Forum*. The membership card is good for free admission to many zoos and aquariums in the U.S. and Canada.

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ANIMAL KEEPERS' FORUM



The Journal of the American
Association of Zoo Keepers, Inc.

JUNE 2005

Managing Editor: Susan D. Chan • **Associate Editors:** Kayla Grams, Grand Junction, CO & Mark de Denus, Reid Park Zoo • **Enrichment Options Coordinators:** Dawn Neptune, Utah's Hogle Zoo & Rachel Cantrell, Disney's Animal Kingdom • **Legislative/Conservation Outlook Column Coordinator:** Georgann B. Johnston, Sacramento, CA. • **ABC's Column Coordinator:** Diana Guerrero, Big Bear Lake, CA • **Reactions Column Coordinator:** William K. Baker, Jr., Little Rock Zoo

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AAZK Executive Director: Ed Hansen, AAZK, Inc., Topeka KS
also serves as AAZK Liaison to the American Zoo & Aquarium Association (AZA)

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AAZK PUBLICATIONS - CONTINUING DATA COLLECTION

Biological Information (formerly Biological Values), 4th Edition - Jan Reed-Smith, Columbus Zoo

AAZK Enrichment Notebook 3rd Edition - Lee Houts, Folsom City Zoo

Resources for Crisis Management in Zoos & Other Animal Care Facilities, Vol. 2 - Susan D. Chan, Topeka, KS



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30th Anniversary
1974 - 2004

About the Cover.....

This month's cover features the North American Raccoon (*Procyon lotor*) drawn by Mary Deckert, a longtime contributing artist to AKF and a docent at the Los Angeles Zoo, Los Angeles, CA. This species is common in parts of Canada, most of the United States and in Mexico. It is sometimes caught and kept as a pet, but in urban America it may be best known for its midnight raids on our garbage cans. It can climb, swim, fish, jump, steal the bait set out to catch it, and lead its enemies into water and drown them. Adults weigh up to 45 pounds with a length of 25 inches, plus 10 inches for the tail. The strangest habit of this small mammal is its custom of dipping everything it eats in water. Often seen washing their food, the raccoon is actually feeling for matter that should be rejected as the wetting of the paws enhances its sense of touch. This species goes by many regional names including washing rat, washing bear, coon, coon cat, etc. It eats birds, toads, fruit, various crustaceans, insects and fish - a true omnivore. Raccoons have non-retractable claws which help in grasping and in digging. The females produce a litter of 4-6 young each year and the young remain with the mother for up to a year after birth. These nocturnal animals have a lifespan of about six years in the wild. Thanks, Mary!

Animal Keepers' Forum publishes original papers and news items of interest to the animal keeping profession. Non-members are welcome to submit articles for consideration. Articles should be typed or hand-printed and double-spaced. Authors are encouraged to submit their manuscripts on a disk as well as in hard copy form. Manuscripts submitted either on disk or electronically as attachments to an email should be submitted in Microsoft WORD. All illustrations, graphs, charts and tables should be clearly marked, in final form and should fit in a page size **no greater than 5.5" x 8.5" (14cm x 22cm)**. Literature used should be cited in the text (Brown, 1986) and alphabetically in the final bibliography. Avoid footnotes. Include scientific name (as per ISIS) the first time an animal name is used. Thereafter use common name. Use metric system for weights and measurements (standard equivalents may be noted in parenthesis). Use the continental dating system (day-month-year). Times should be listed as per the 24-hour clock (0800, 1630 hrs. etc.). Glossy black and white or color prints (minimum size 3" x 5" [8cm x 14cm]) are accepted. Clearly marked captions should accompany photos. Please list photo credit on back of photo. Photographs may be submitted electronically as either JPEG or TIFF file attachments.

Articles sent to Animal Keepers' Forum will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for AKF. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 1-800-242-4519 (US); 1-800-468-1966 (Canada); FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com

Deadline for each regular issue is the 10th of the preceding month.

Dedicated issues may have separate deadline dates and will be noted by the editor.

Articles printed do not necessarily reflect the opinions of the AKF staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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E-Mail Addresses: You may reach Barbara Manspeaker at AAZK Administrative Offices at: aazkoffice@zk.kscoxmail.com You may reach Susan Chan and Animal Keepers' Forum at: akfeditor@zk.kscoxmail.com

AAZK Website Address: www.aazk.org

BFR Website: <http://bfr.aazk.org>

Scoops & Scuttlebutt



Chapters Support AAZK, Inc. Through Donations

The AAZK Board of Directors and the Administrative Office staff would like to thank the following Chapters for their donations: Sacramento Zoo Chapter (Sacramento, CA) \$100.00 for General Operating Fund. We also wish to acknowledge the Dallas AAZK Chapter, hosts for the highly successful 2004 AAZK National Conference, who have sent the Association an additional \$3000.00 to be used however it is most needed. This amount was in addition to the check sent that represented AAZK, Inc.'s share of the registration fees and auction proceeds from this conference. Our sincere thanks for your most generous support.

Three AAZK Animal Data Transfer Forms Now Available Online !!

The American Association of Zoo Keepers, Inc. encourages all zoos and other animal care facilities to utilize the following data transfer forms whenever they are shipping an animal between facilities. Providing this information to the receiving facility will ease the transition of a new animal into the collection and provide vital information to receiving staff. With the greater emphasis on enrichment and training at all AZA-accredited facilities, this information will prove especially important in providing continuity and consistency when an animal is shipped.

All three forms are now available in downloadable pdf format at www.aazk.org<

All collection managers are asked to include all three of the forms where applicable whenever an animal is shipped. THREE copies of each form should be sent with the animal being shipped. At the receiving institution these copies should be distributed to the following staff:

a) Curator b) Keeper who will be caring for the animal c) Zoo files and/or veterinarian

1. The original **Animal Data Transfer Form** provides information on the animal, its diet, reproductive history, medical and physical husbandry information, etc. This form is one page in length.
2. The **Enrichment Data Transfer Form** provides information on the animal's behavioral history, and data on what types of enrichment have been utilized and their success or failure with the particular animal. This form is two pages in length.
3. The **Operant Conditioning Data Transfer Form** provides background information on any training that has occurred with the animal, training schedules, types of training, animal's reaction to training, etc. This form is two pages in length.

We all seek to provide the best and most professional care possible for the animals in our collections. Using the three AAZK data transfer forms will help provide receiving institution staff with the tools to make this possible. Your cooperation and participation is encouraged and appreciated. These forms are provided as a professional courtesy by AAZK, Inc.

ICZ Second Call for Papers/Posters and Workshops

The 2nd Conference of the International Congress of Zookeepers has issued a Second Call for Papers. After the success of the 1st conference in 2003, a second conference will be held in Gold Coast, Queensland, Australia from 7-11 May 2006 with more than 300 zookeepers from around the world expected to attend. The conference will cover all areas of Zookeeping.

You are invited to submit an abstract of a paper or presentation you would like to give. More information and guidelines can be found at www.iczoo.org< **Deadline for submissions is 30 September 2005.**

Deadline for Two of AAZK's Grants is July 1st!

A reminder that applications for two of the grants offered by AAZK, Inc. must be submitted by **1 July 2005**. Information on and application forms are available on the AAZK website or by contacting the Grants Committee Co-Chair Shelly Roach (shelly.roach@columbuszoo.org).

The Geraldine Meyer/AAZK Professional Travel Grants. A total of \$2,000.00 is available annually. Grants are awarded twice a year, in May and November. Applications, from new and experienced keepers, are evaluated on their merit based on the member's submission of all requested materials. Awards may range from \$1,000.00 to \$250.00 or less depending on need. Applicants are encouraged to solicit additional funds from their institution or other sources. Applicants with other committed funds, or in-kind support (time off) will receive slight priority but all applications are encouraged. Applications for mid-year consideration are due by February 1 of the calendar year; applications for end of the year consideration are due by **July 1** of the calendar year. Money will be available upon notice to the recipient. Winners are required to submit an article to the *Forum* on the workshop or research they participated in.

AAZK awards \$1,000.00 to the winning applicant to attend the new ***Advances in Animal Keeping Course*** offered by AAZK and AZA through the AZA professional schools program. Applications are due by **July 1** of the year prior to the one in which the applicant wishes to attend this course.

Please Note E-mail Change for Bowling for Rhinos Coordinator

You are asked to update your email address book for Patty Pearthree, Coordinator for AAZK's Bowling for Rhinos program. Patty may now be reached at ppear3@pear3.org. You are asked to use this email address if you need to contact Patty concerning your planned BFR event, or if you have questions about holding an event.

Correction/Apology on March Cover Art

It has been brought to my attention that the art of a Barn Owl (*Typo alba*) that appeared on the March 2005 cover may have been taken directly from an illustration by Peter Parnall that was published in a book called "The Nightwatchers" by A. Cameron and P. Parnal, published by Four Winds Press, NY in 1971. We certainly wish to give proper credit to the artwork's original source. This particular piece of artwork had been in the AKF files for some time prior to its publication in the journal and attempts to reach the submitting artist were unsuccessful. We apologize if this was indeed a misrepresentation of the true source for the artwork. We receive a large amount of artwork submitted for possible cover use, and take the artist's word that it is original to them. *AKF Editor*

Websites Worth a Look - from Peter Dickinson at ZooNews Digest

The following websites were recently mentioned on ZooNews Digest as being worthwhile. We checked them out and they do indeed have some good information and resources. The World Animal Day website even has a nifty downloadable animated screensaver.

AZA Wildlife Contraception Center
<http://www.stlzoo.org/animals/scienceresearch/contraceptioncenter/>

The Ultimate Ungulate Page
<http://www.ultimateungulate.com/>

Fossa World
<http://www.fossaworld.com>

World Animal Day
October 4, 2005
<http://www.worldanimalday.org.uk/index.asp>

From the Editor: The July 2005 issue of *AKF* will be a special edition dedicated to Cheetah husbandry, breeding, research and conservation. We will not be running any of our regular columns, including job listings, in that issue. Watch for it - it is going to be spectacular!

From the Executive Director

I would like to take some time in this column to thank the Dallas Chapter of AAZK once again for serving as hosts of the 2004 National Conference. The keepers worked very hard to plan this conference and provide an educational experience for the delegates. The Chapter fulfilled all of their financial commitments to the AAZK, and on top of that, the Association just received an additional \$3000.00 of the conference profits as a donation from the Dallas Chapter to the general operating fund. For two years in a row, the Chapter Hosts have recognized the financial difficulties that face the Association and have stepped up to contribute. Thanks, Dallas. Thanks again, Cleveland.



So how are your plans coming for hosting the AAZK Conference in 2008?

Time is running short. In order to get your Chapter bid materials through the review process, I will need the package by 15 June. As I have said before, planning and hosting a National AAZK Conference is difficult, but it is also rewarding.

So how are your plans coming for holding a fundraiser to benefit AAZK National?

The work of a few hands will benefit the many. Chapters have enormous strength in numbers and imagination and can take the burden off the individual membership. If 80 Chapters can hold fundraisers that result in an average donation to AAZK, Inc. of \$500 per Chapter, good things will happen across the board. To put that figure in perspective, \$40,000 might fund the publication of the *Animal Keepers' Forum* for 14 months, or it will push off an increase in individual membership dues or Chapter fees for a few years.

I know I continue to ask a lot from Chapters, but the long-term health of the Association is well worth the effort.

Ed Hansen, AAZK Executive Director
Tucson, AZ

If You're Moving.....

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From the Executive Director

HAVE YOU SUBMITTED YOUR SURVEY YET?

An Important Note to the Professional Membership Zoo Keeper Survey Seeks to Understand the Passion Keepers Have for the Profession

All of our members in the Professional category recently received a survey in the mail. The survey, authored by Brigham Young University and Washington University, with specific input from the American Association of Zoo Keepers, Inc, will discuss with you your thoughts on the passion of exotic animal keeping. Similar surveys for a membership of our size, compiled and calculated by a university or similar would cost this Association about \$10,000. This survey is being performed gratis. You won't even have to buy a stamp. Over 500 surveys have been returned so far, but we want to hear from every Professional AAZK member. So, if you have not filled out and submitted your survey, please do so ASAP.

Exotic animal keepers mystify the business world. You are highly educated, you analyze and problem solve issues such as dietary and medical cases, with sometimes one-sided information and perform complex tasks with very dangerous species. Finally, when you put all that together, you do it all for very little money.

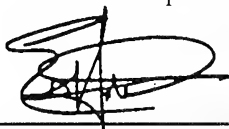
At first glance, the survey will seem long and complex, but in fact, the survey is simple, but it is long. The questions are directly related to the animal profession, animal facilities, animal managers and your Association. The survey is completely anonymous.

This survey will also be sent out to approximately 1500 professional animal keepers in the U.S., who are not AAZK members, so please do not fill out the survey twice. The answers from Professional AAZK members will be compared to non-AAZK members.

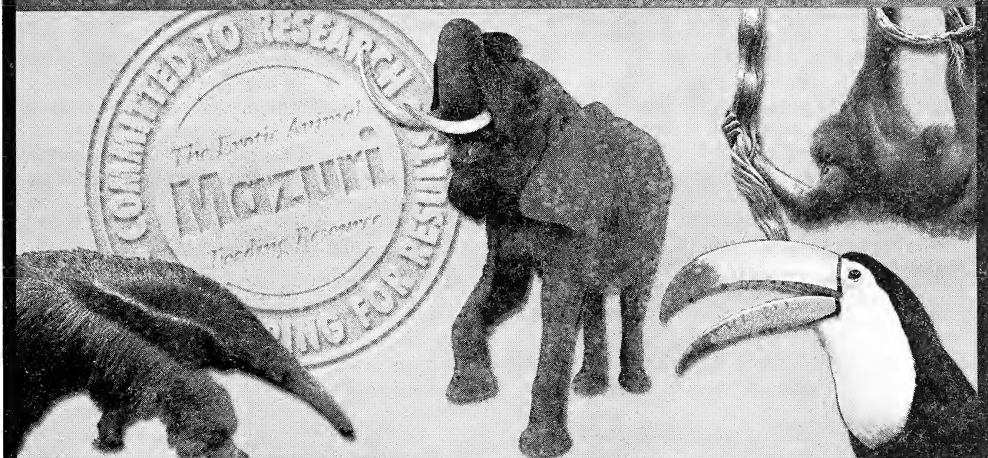
At the conclusion of the survey is a short section regarding AAZK. Please answer the questions honestly and tell us how we're doing, and how we can improve.

As an incentive to complete the survey, you can enter a contest sponsored by the Universities that collaborated on the survey. Cash prizes will be awarded to the conservation group of your choice.

Thank you in advance for completing and mailing your survey.



Ed Hansen
Executive Director/AAZK Inc.



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Coming Events

21st Congress of the International Primatological Society - 26 - 30 June 2006 in Entebbe, Uganda. For further info: wolupot@yahoo.com

Turtle Survival Alliance Annual Conference - 22-24 July 2005 - hosted by the San Diego Zoological Society, San Diego, CA. Will include sessions on graduate research, captive husbandry and international field conservation. To register or for more information visit www.turtlesurvival.org

7th International Conference on Environmental Enrichment - 31 July - 5 August, 2005, hosted by the Wildlife Conservation Society in New York City, NY. Registration fee is US \$250. Conference site is Columbia University, with day trips to Central Park Zoo and the Bronx Zoo. Housing arrangements have been made for Columbia dorm rooms, starting at \$45 per person, double occupancy. The theme is "Unifying the Art and Science of Animal Enrichment". Please visit wcs.org/icee2005 for more information on submitting papers and registering for the conference. Please contact icee2005@wcs.org if you have any questions.

Association of Avian Veterinarians 26th Conference - 8-11 August in Monterey Bay, CA. For more information or to view the entire program visit www.conferenceoffice.com/aav or you can email aav@conferenceoffice.com; phone 303-756-8380.

1st EAZA Training Seminar for Zoo Educators - 15-21 August 2005 hosted by the Copenhagen Zoo. For further inquiries, please contact Peter Haase (pnh@zoo.dk) at the Copenhagen Zoo.

28th Annual Meeting of the American Society of Primatologists - 17-20 August 2005 in Portland, OR. For more information, contact: Dr. Kristine Coleman, Chair of the local organizing committee, at colemank@ohsu.edu

Association of Zoo Veterinary Technicians 25th Annual Conference - 21-24 August 2005 in San Antonio, TX. Please contact conference coordinator Candace Baird (cbaird@hotmail.com) or refer to the AZVT website at <http://www.azvt.org/2005azvtconferenceinfo.htm> for more details.

First European Congress of Conservation Biology - 23-27 August, 2005 in Eger, Hungary. Organized by the Society for Conservation Biology - European Section and the Hungarian Natural History Museum. This cornerstone international event will for the first time bring together academics, students, policy makers, natural resource managers and NGO representatives from all over Europe to address all aspects of conservation biology from research to application. Please visit the website (<http://www.eccb2006.org>) for details, and register for new information.

32nd AAZK National Conference - 28 August - 1 September 2005. Hosted by the Audubon AAZK Chapter and the Audubon Nature Institute, New

Orleans, LA. See information and registration forms in this issue of *AKF* or visit the conference website at www.aazk2005.org

Aquarium & Zoo Facilities Association (AZFA) Annual Conference - 25-28 September 2005 - hosted by the Tennessee Aquarium, Chattanooga, TN. For further information see <http://www.azfa.org>

New World Primate Workshop (A focus on Cebids) - 30 September - 1 October 2005. The Cleveland Metroparks Zoo announces a workshop on New World Primates that will focus on the captive care of Cebids in U.S. institutions. Informal roundtable discussions will include the following topics, diet and health, social groups and mixed species, enrichment and training behaviors, and population management. The workshop will begin at 10 am on Friday, September 30, and end at 4 pm on Saturday, October 1. Attendance is limited to 50 people and registrants will be asked to complete a pre-meeting survey regarding their experiences with Cebids. The workshop will be held on the zoo grounds. Some meals will be provided and local lodging suggestions can be provided. Registration fee = \$25. For more information and a registration form contact Tad Schoffner at 216-635-3332 or email at tad@clevelandmetroparks.com

26th Annual Elephant Managers Association Workshop - 5-9 October, 2005 in Portland, OR. Hosted by the Oregon Zoo. Pre-conference trip will be to the Point Defiance Zoo (5 Oct.); the post-conference trip will be to Wildlife Safari (10 Oct.). For more information please visit their website at <http://www.oregonzoo.org/elephantworkshop> or email elephants@metro.dst.or.us

Reptile and Amphibian Training and Enrichment (R.A.T.E.) Workshop - 8-10 December 2005 at Disney's Animal Kingdom, Lake Buena Vista, FL. For more information about R.A.T.E., the national workshop and/or the Listserve and how you might participate, please contact Andy Daneault (andre.j.daneault@disney.com) or Vance Alford (vance.c.alford@disney.com).

Second International Congress of Zookeeping (ICZ) - 7-11 May 2006 in Gold Coast, Queensland, Australia. Visit website: <http://www.iczoo.org> for latest information. See information on Second Call for Papers in the May 2005 issue of *AKF*.

2006 International Gorilla Workshop - 23-26 June 2006 at Paignton Zoo, Devon, England. Will include Icebreaker, three days composed of plenary sessions, discussion workshops and zoo visits. Post-conference tour will include several significant U.K. gorilla/ primate collections including Howletts and Port Lympne Zoos. Watch here for further information.

Post Your Coming Event Here - email to:

akfeditor@zk.kscoxmail.com

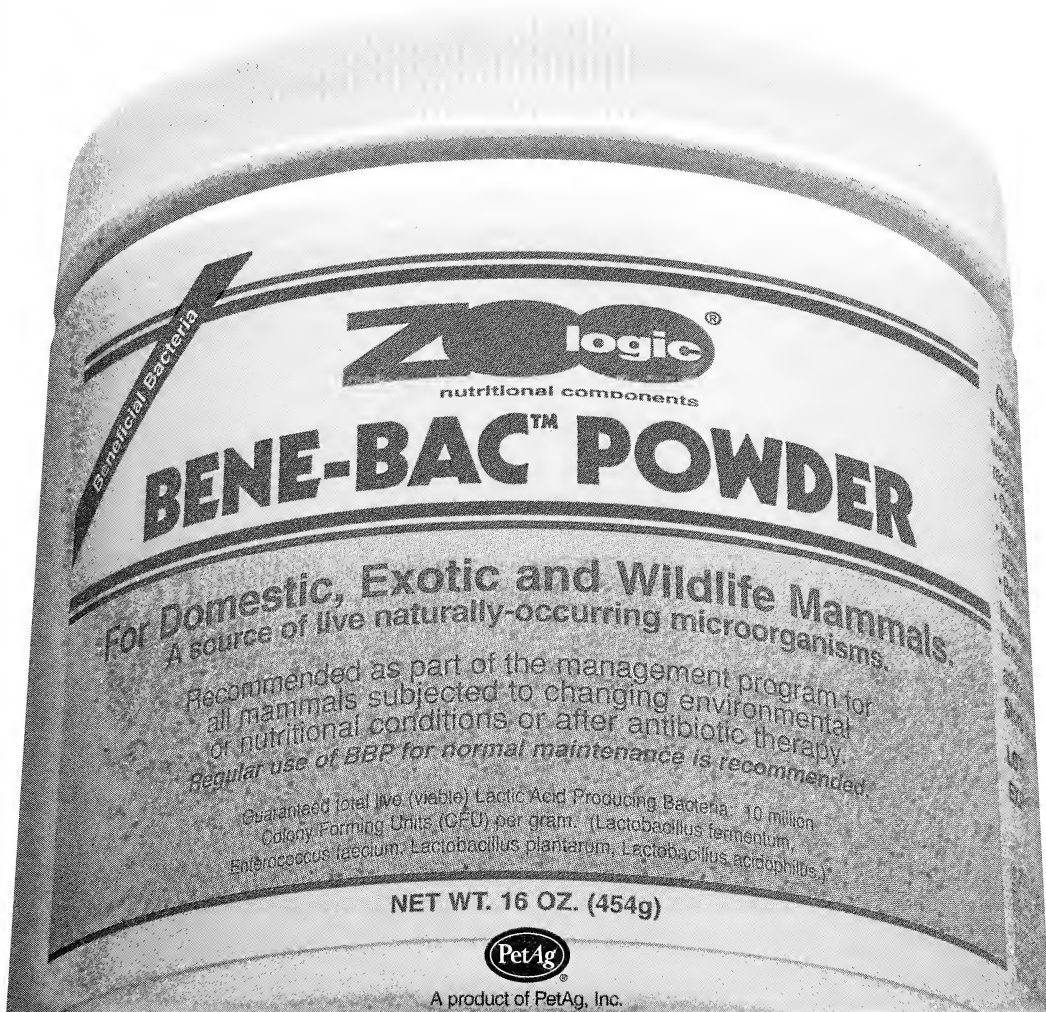
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AAZK Announces New Members

New Professional Members

P. Jill Palmer, **The Philadelphia Zoo (PA)**; Matthew Warble, **The Maryland Zoo in Baltimore (MD)**; Tiffany Shrum, **Discovery Cove (FL)**; Rain Westgard, **Central Florida Zoological Park (FL)**; Debbie Johns, **Disney's Animal Kingdom (FL)**; Gladys Helen Overton, **Jackson Zoological Park (MS)**; Diana Tutro, **Detroit Zoological Park (MI)**; David Grubaugh, **Brookfield Zoo (IL)**; Kasie E. Stickel, **no zoo listed (IL)**; Amy Pierce, **Tulsa Zoo & Living Museum (OK)**; Mike Stowell, **Los Angeles Zoo (CA)**; Matthew Gelvin, **no zoo listed (CA)**; Katie Tooker, **Living Desert (CA)**; Sabrina Friedline, **Sacramento Zoo (CA)**; Lee Kellar, **Alaska SeaLife Center (AK)**; Rob Clement and Lee-Anne Mace, **Bowmanville Zoological Park (Ontario, Canada)**.

Renewing Contributing Members

Ron Manseur, Docent
Detroit Zoological Park, Royal Oak, MI

Amy Roberts, Curator of Mammals
Audubon Zoo, New Orleans, LA

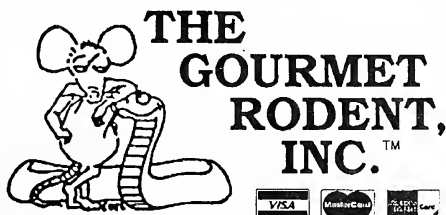
New Institutional Members

Indianapolis Zoo
Indianapolis, IN
Mike Crowther, President

Alaska SeaLife Center
Seward, AK
Tylan Schrock, Executive Director

Zoo Biology Group - A Great Resource for Zoo Professionals

Need assistance? You could try Zoo Biology, it is probably your best bet for zoo/animal information. Zoo Biology is the original discussion, Q&A group dealing with the diverse range of Zoo Sciences. First established in 1999, the Zoo Biology Group is concerned with all the disciplines involved in the running of a zoological garden - captive breeding, husbandry, cage design and construction, diets, enrichment, management, record keeping, etc. This group is restricted to zoo professionals. It is specifically a forum for professional zoo staff. Exceptions may be considered in the case of students or allied professions. A genuine commitment to both *in-situ* and *ex-situ* conservation is absolutely essential. You are encouraged to copy answers to the group. The useful archive section increases each day. There are 1400+ Zoo Biology subscribers to date and 99% of subscribers have between five and 40 years of practical zoo experience in all areas. An immense combined expertise is waiting to share their knowledge. This group is moderated. To Subscribe to Zoo Biology send an e-mail to: zoo-biology-subscribe@yahoo.com< Leave the subject and message area blank. When you subscribe at the same time please send a separate e-mail to: peter@elvinhow.prestel.co.uk giving your brief bio. (e.g. collection, work area and interests). All details will be kept strictly confidential. Failure to do this will mean that your subscription will not be processed. This step is essential to keep the group restricted to professional zoo staff. To Unsubscribe from Zoo Biology send an e-mail to: zoo-biology-unsubscribe@yahoo.com Leave the subject and message area blank.



RATS AND MICE

Bill & Marcia Brant
6115 SW 137th Ave., Archer, FL 32618
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FAX: (352) 495-9781
e-mail: GrmtRodent@aol.com

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Animal Training Committee AAZK, Inc.

Tools of the Trade: Variety is the Spice of Life

Jay Pratte, Giant Panda Keeper, Zoo Atlanta, Atlanta, GA

&

AAZK Inc. Animal Training Committee

One of the first things new trainers want to know is “how do I start?” Experienced trainers will then share their wisdom about choosing a clicker/whistle, or some other bridge, and pairing it with food, attention, etc. Therefore, the bridge, or conditioned reinforcer, becomes our first training “tool” (*Animal Keepers’ Forum Training Terminology* - May through September 2004 issues). Each trainer has his/her own preference for bridge type, based on personal choice and convenience. The usual progression, after bridge selection, is often into target training. Get a dowel rod, attach a pool float, whiffle ball, tennis ball, etc. and attach ball to the rod, and you now have your very own target device. A simple tool indeed, but one that has tremendous potential for teaching an animal the basics of positive reinforcement and cue response. Targeting (*AKF Training Terminology*) can lead into a myriad of positioning type behaviors such as: up, down, climb, follow, lean-in... The list goes on, reinforcing for us, as trainers, the usefulness of an effective tool. The target is simply a tool that helps approximate behaviors.

Now how about those other behaviors you want to teach the animal(s) in your care? When hammering out your shaping plan and considering your approach, stop and think, “Is there a tool that can help shape this behaviour, and also help signal the subject as to my expectations for a response?” A personal example from my past is when I was training tigers for tail blood draws. We had no functional ‘squeeze’, so I had to figure out how to get hold of the cat’s tail without putting the animal or myself at risk. After several failed attempts with a pseudo-snake hook to grab the tails while the tigers were in a “lean-in” position (including one instance of having the hook taken from me and chewed to bits), I noticed the irritated cat’s tail swishing. I designed a new, simple target pole: a dowel rod with a large washer screwed flat on the end. I started tapping this on the floor, and when the cat swished the tail, thus hitting the target with it, a huge shaping jackpot was awarded. Suffice to say, the training progressed rapidly, and within a few weeks I could tap the “tail target” on the floor outside the bars, and the tigers would each obligingly slide their tail out to where I could progress further into shaping the behavior. The moral, in this case, being that the tool made all the difference for my training goal.

There are many additional tools that can aid in the training process. Some trainers use a “hip” target to get an animal to “lean-in”. Hanging targets can be used to train remote stationing, as can a laser pointer. Building a barrier device to shape or improve positioning for a behavior is creative tool use. Try using a colored paint stir-stick as a target for a foot presentation, identifying it as a separate tool and cue from other targets that may be in use (i.e. - a nose ball-target). Many keepers have designed complex devices to assist in shifting and crate training, and some truly spectacular examples exist of chambers built to accommodate blood draws for several species (including big cats, primates, birds, monitors, crocodiles...). Remember, you are only limited by your imagination, AND your willingness to talk to others and see if they have any ideas to help you out.

A new tool doesn’t have to be all bells and whistles. It can be grabbing the rake off the wall and using the handle end as the target for an animal rump. The supplies to build great tools are all around, and likely free of charge or very inexpensive: wooden rods, or broom handles from your garage or zoo maintenance shop, balls or floats, washers, screws, plywood... Be creative, pretend it’s “keeper enrichment” (as animal keepers we view trash and recycling as a training and enrichment

supply anyhow). Suddenly the mundane items you see every day take on new value as training "tools".

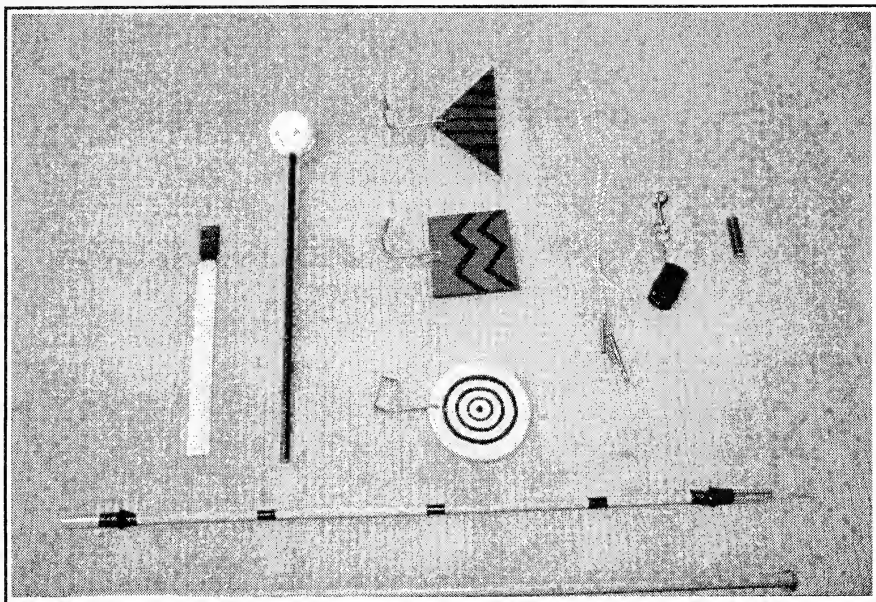


Photo: Laurie McGivern

A final suggestion, and that is to make all of your tools convenient and accessible. Try attaching small cup-hooks or eyebolts to the end of target rods. Drill small holes in paint sticks or buckets to attach rings. These tools then attach neatly to your belt or belt loop, and can also be hung in a safe and organized manner somewhere in your work area. Chances are, if you don't like using the tools, or they are difficult to store or carry, you will be less inclined to use them. One of the goals is to make your life as a trainer and keeper that much simpler.

Operant conditioning is an amazing learning process for both animal and trainer. Sometimes it comes easy, and sometimes it's a tremendous challenge to reach new behavioral goals. Just remember that like everything else in life, there might just be a tool that can make your task (and the learning process) much easier.

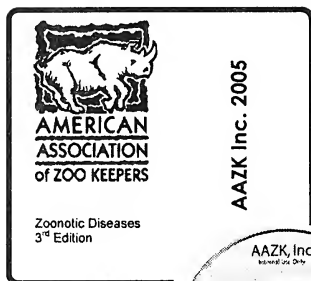
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Abstract Deadline Near!!

Call for Papers - Volume II

Resources for Crisis Management in Zoos & Other Animal Care Facilities

The American Association of Zoo Keepers, Inc. (AAZK) is seeking submissions for our newest reference/resource publication, Volume II of *Resources for Crisis Management in Zoos & Other Animal Care Facilities*. Subject matter should be applicable to crisis management, zoological safety, emergency preparedness planning, public relations, case histories, and staff training. Papers should not exceed 10 pages in length with one-inch margins, conform to MLA standards, and should be submitted as a Word Document attached to an email that includes author contact information. Photos and other graphics should be submitted as either jpeg or tiff files. Authors should also submit a one-paragraph biography to accompany submission.

Author abstract deadline is set for **1 July 2005** with a final paper submission deadline set for **30 September 2005**. Publication is planned for 2006.

For more information, please contact:

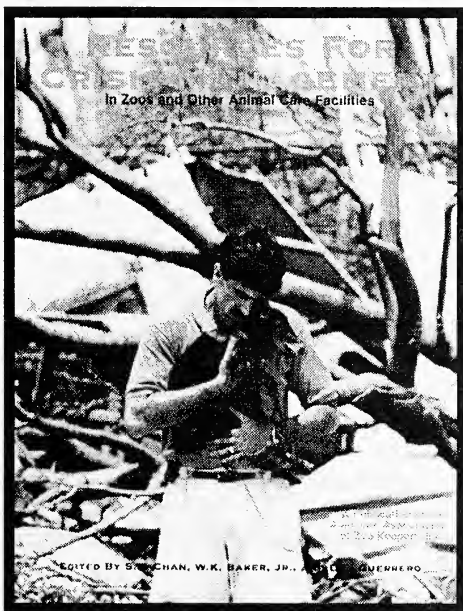
Susan Chan, Senior Editor:
akfeditor@zk.kscoxmail.com

or

Bill Baker, Associate Editor:
wkbaker@littlerock.state.ar.us

The First Volume of the *Resources for Crisis Management in Zoos & Other Animal Care Facilities*, published in 1999 was a bestseller, selling out with copies still being requested. We hope to make Volume II just as useful to animal care professionals. We hope you or your institution will consider submitting an article for this important reference work. We can all learn from crisis situations that have occurred at our

own facility, and sharing information may help another facility avoid just such a crisis or, at the very least, be better prepared to handle it. We all benefit from sharing our experiences.



Disney's Animal Kingdom Night Animal Care Team

*By Sean Amidon, Karen Carlson, Cynthia Carney, and Jon Wild
Disney's Animal Kingdom, Lake Buena Vista, FL*

Few zoos have animal care staff on duty 24 hours per day. At Disney's Animal Kingdom (DAK) this is not the case, and many unforeseen positives have developed as a result. This article describes some of the unique opportunities and benefits a third shift keeper staff can provide.

The DAK Night Team is comprised of 14 full-time keepers and three zoological managers with diverse backgrounds and experience levels. The Night Team has keepers from entry-level keepers to seasoned veterans with strong backgrounds in various taxa. From 2000hrs to 0500hrs all the 2000+ animals in the park are under the Night Team's supervision.

The Night Keepers start their shift at 1800hrs. At this time they each go to their focus area (any of the seven various areas in the park that make up the animal care day teams) and help with the Day Teams' closing routine. This gives the Night Keepers an opportunity to build relationships with the day teams, get more hands-on animal care experience, and become more familiar with the operations of the various areas. This acquired knowledge of each area and individual animals can then be shared with the rest of the Night Team.

One may wonder if there is truly a need to keep an animal care staff in the park around the clock. The keepers working the day shifts feed and clean all the animals, shift them in for the night, and do all the other things keepers would do at any zoological facility. What could there be for a 17-person team to do all night?

Three times each night rounds are made of the park. These occur at 2200hrs, 0030hrs, and 0300hrs. During these rounds animal exhibits are checked to ensure all animals are safe, secure, and not being disturbed by night time maintenance, custodial or horticulture activity. We also are able to accommodate special requests from the day teams such as checking animals that have been recently immobilized for renarcosis, checking that heaters are functioning or watching for impending births. These observations maintain DAK's excellence in animal care.

A large portion of a Night Keeper's job entails escorting work crews that need access to animal areas. The preponderance of DAK's work activities take place during the night to avoid interfering with our guests' experiences while visiting our park. Anytime work is required in or around an animal exhibit the Night Keeper staff must be present. Whether it is a merganser in our New World Duck exhibit, an eland on the Kilimanjaro Safari, or a tarantula at Rafiki's Planet Watch, if the potential exists for an animal to be stressed by excess noise or light, we are here to monitor and if necessary intervene. Though we are here to ensure the welfare of the animals, the safety of the work crews is a priority. Non-animal care workers understandably may not realize behind one barn door awaits a rhino but it is okay to work in another part of the barn, or that a Galapagos tortoise is fully capable of inflicting serious injury if not watched. The Night Keeper staff is present to protect them from the animals and vice versa.

Between rounds and monitoring work crews, time is used for various other team responsibilities. We feed baby siamang and impala, we provide nighttime enrichment to various animals, provide guests with the opportunity to view animals with night vision equipment, participate in various ongoing research projects and many others.

Traditionally enrichment is limited to the operating hours of a facility. The DAK Night Team is taking this one step further. We are experimenting with the benefits and possibilities of nighttime enrichment. In cooperation with various day teams, we have begun implementing enrichment programs for some of our nocturnal animals. We are currently planning for and providing enrichment items for North American porcupines (*Erethizon dorsatum*). These animals are used for shows and the effects of the nighttime enrichment on their show performances are being tested. Also, our hippopotamus collection is being given late night feedings. Though we have started this nighttime enrichment on a small scale, we are in the planning stage to develop new ideas.

The DAK Night Team participates in several ongoing research projects. Like enrichment, research is an important part of any facility's operation and again this is often restricted to daytime hours. DAK's East Savannah Team began a study to monitor the levels of aggression in their group of six female tigers both on exhibit and off-exhibit. Data is collected during a three-month on, three-month off schedule by both day and night teams. Night keepers collect data for 45 minutes during a two-hour window four to six nights a week. The data is collected while the cats are in their nighttime (off-exhibit) quarters. Data is also being collected at night for a Tiger Affiliation study. This study records which tigers are affiliated, or within one body length of each other. The information gathered during the Aggression and Affiliation studies has helped the East Savannah Team make important decisions regarding the daily management of this group of tigers. Without the assistance of the Night Team data would be lacking for the times when the day keepers are not present.

Partnering with the Ituri Forest and Wildlife Tracking Center Teams (our endocrinology lab) the Night Team participates in a hormone study in Nile hippopotami (*Hippopotamus amphibius*). The study focuses on monitoring female hormones that are involved in the reproductive cycle, the stages of pregnancy, and the effects of contraception on these hormones. The study also focuses on male hormones that are correlated with aggression and stress. The night keepers assist in this study by processing fecal samples that have been collected and then frozen by the Ituri Forest day keepers.

While all animals in the park are the Night Team's responsibility, the Night Team is solely responsible for three Poison Frog (*Dendrobatid*) exhibits. We have developed a groundbreaking frog-training program and are researching new and innovative amphibian enrichment programs.

The Night Team also plays an integral part in an ongoing conservation project that monitors wildlife on Walt Disney World conservation areas. Alligator censuses take place and are led by members of the Night Team.

Employing the talents of a third shift keeper staff opens a whole world of opportunity. Many unique prospects are created. Trained staff on property over night benefits the animals and provide additional opportunities for variation in enrichment programs. By employing a night keeper staff institutions can increase their research efforts. The possibilities are endless. The key is creating a diversified team with drive and motivation that is dedicated while at the same time enjoying working at night, and who are effective in partnering with their day team counterparts. Finding those keepers is often difficult but they are out there. So with a little work and planning a whole new world of opportunity can be opened.

*The American Association of
Zoo Keepers, Inc. thanks
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Snipits from the ZooBiology Listserve . . .

The following items were taken from the ZooBiology Listserve organized by Peter Dickinson through the Yahoogroups. Peter has kindly given *AKF* permission to publish the great ideas on fundraising, enrichment and other topics which have come from the listserve members. We will try to include some each month as space allows. Need assistance? Try ZooBiology, it is probably your best bet for zoo/animal information. ZooBiology is the original discussion, Q&A group dealing with the diverse range of Zoo Sciences. First established in 1999, the Zoo Biology Group is concerned with all the disciplines involved in the running of a zoological garden - captive breeding, husbandry, cage design and construction, diets, enrichment, management, record keeping, etc. Hediger described zoo biology as "the science which embraced everything which was biologically relevant to the management of the zoological garden." This group is restricted to zoo professionals. It is specifically a forum for professional zoo staff. Exceptions may be considered in the case of students or allied professions. A genuine commitment to both *in-situ* and *ex-situ* conservation is absolutely essential. You are encouraged to copy answers to the group. The useful archive section increases each day. There are 1400+ Zoo Biology subscribers to date and 99% of subscribers have between five and 40 years of practical zoo experience in all areas. An immense combined expertise is waiting to share their knowledge. This group is moderated.

To Subscribe to Zoo Biology send an e-mail to: zoo-biology-subscribe@yahoogroups.com< Leave the subject and message area blank

#5 - The Baltimore Zoo has managed a goat/sheep petting area for many years with great success. When we initially set it up, the animal staff had a difficult time convincing zoo management not to allow public feeding, but we sold them on the idea of using brushes. This has been incredibly successful! We order inexpensive plastic curry brushes by the boxful and allow people to use them if they wish. As a result, our goats are all friendly, pettable, very well-groomed, and not at all aggressive. They never look to the public for food, and you never see them swarm over people. They only get tubs of hay while in the petting yard, so they never associate it with treats. Everyone is relaxed and the petting yard is a pleasant experience for both the public and the staff. I would happily recommend using brushes as a way for zoo guests to interact with animals in a petting zoo situation. — Chris Bartos, Baltimore Zoo

#6 - At San Diego Wild Animal Park I noticed small feeding stations throughout the compound with the 25 cent gumball machine. Twist of a handle and out comes a small handful of grains and such to throw over to the many ducks and wading birds in the enclosed pond area. A LOT of people were standing there throwing this out to the critters. I feel that they did this two-fold; help let people feel "the need to feed", and of course the quarters were adding up daily! The opportunity to do this was within the middle of the park, and thusly people got it out of their system, the kids were having a blast, the elderly enjoyed it immensely. Appropriately placed feeding stations for certain animals would be a great little money producer and a lot of zoos incorporate this into their program. Possibly at the cafes or drink stands, bagged foods could be sold with specific instructions about who it is intended for, and a blurb about conservation, or "where you food donation goes".. etc. etc. — Leslee H., Southern Comfort Ranch and ZooVenture

#7 - How about target coin slot rollers, where the coins are placed into the roller gulley and the gulley splits into several separate pathways rolling down its own pre-destined route, at the end of its travels, falling into individual coin collectors with different headings i.e. All monies collected here will go towards the new Squirrel Monkeys exhibit, or all monies collected here will go towards the *in-situ* conservation project for the Golden Lion Tamarins of Brazil. Just another idea!! Kids love this kind of basic interaction. - Steve Bryant, Wildlife Gibraltar, Conservation Park Manager

#8 - Recently at my zoo we have added a "frog jump", three giant trampolines that kids bounce on from bungee cords. The zoo rents it for the summer and patrons pay extra to jump on it. — Holly Hummel

---watch for more in future issues of AKF

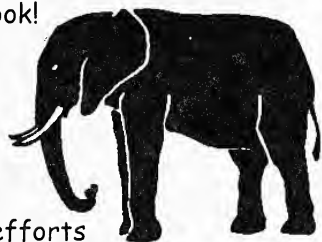
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A Night of Passion: Dreamnight at The Zoo *An Evening for Chronically Ill and Disabled Children*

By

Norman Gershenz, Hanck van Bakergem, Ko Veltman
Center for Ecosystem Survival, San Francisco, CA

Every so often, our expectations of what is possible change. A new idea, an inspired invention, a resourceful person or a group appears and alters the way we think about the world. Suddenly, sending a man to the moon, sprinting a mile in under four minutes, replacing a human heart with an artificial one, are no longer laughable propositions. We owe every quantum leap in our evolution as a society to those sorts of catalysts.

I'm very honored to introduce the idea of Dreamnight at the Zoo, and hope that the time will come when the first Friday in June of each year will fulfill the dreams of chronically ill and disabled children around the world. At the Center for Ecosystem Survival we believe that the health of the individual determines the health of the planet.

In October of 2003 I attended the International Zoo Conference in Amsterdam and heard Ko Veltman speak about Dreamnight and knew I had to share his inspiring story with you and, with that, in turn you would share it with your colleagues, your directors and your community. Ko Veltman and his colleague Peter van der Wulp took me aside and said "a lot of things will change in your life if you do Dreamnight". They went on to say, "You will get warm feelings in your heart and be emotionally touched many times."

Allow me to take you back in time to the year 1996. Peter van der Wulp, an employee of the Rotterdam Zoo Blijdorp went to his General Manager with a special request: he wanted permission to organize a cost-free evening out in the zoo, especially for children with cancer. Many of these children do not very often have the opportunity to visit a zoo. Their parents mostly spend their funds on traveling for treatment and trying to spend as much time as they can with their very ill child, and, even if they should visit the zoo on an ordinary day, according to Peter, they would be stared at because they look different. Peter wanted to create a very special and joyful evening, not just for the child, but also for the whole family.

The General Manager agreed and Peter talked about his idea with his colleagues, who adopted his plan immediately. He took his idea to the Sophia Children's Hospital and talked to the medical staff. He wanted to know in what way could he make the children feel like V.I.P.'s for the evening. He asked the staff's advice as to what they believed was achievable for the children, what they could and could not do, what was possible and what was not. Tickets would be distributed by the medical staff to the children and their families. Peter and his zoo colleagues set out to develop programs and activities for the very first Dreamnight evening.

The evening was an immense success; 175 children were invited and they came with their parents and brothers and sisters. Some 700 people visited the first Dreamnight at the Zoo. They were greeted with a warm reception of music, fantasy figures, costumed characters and clowns.

The children were allowed to open doors, ask the keepers questions and get as close to the animals as possible, creating a very personal and intimate experience. For a blind or sight-impaired child, touching a tiny tarsier or having a giant African millipede climb up their arm is something they will never forget. It was fantastic to observe all the happy faces of the children, and to see the relatives of the children, who often have a very heavy burden to bear, also having a good time. Meeting similar families also having a carefree evening without the everyday problems is another enjoyable aspect of the project. For the zoo-colleagues it was a very emotional and a perfect team-building experience. Every person involved by the end of the evening felt completely rewarded.

Local companies and corporations were pleased to contribute to this event in a variety of ways, for example by providing free transportation, snacks, ice-cream, drinks and Dreamnight keepsakes the

children and families could take with them; like potted plants of marigolds, gold heart-shaped pins and plush animals. Face painting adds a special touch to Dreamnight. It is great to see faces painted with images of lions, butterflies and flowers, all done by volunteers. Famous bands and artists (sometimes zoo staff or volunteers) offered fantastic music or theater acts.

The Rotterdam Zoo made Dreamnight an annual event. Each year more hospitals and medical care-centers got involved and the enthusiasm spreads. Ko Veltman (from the Amsterdam Zoo, Artis) visited the Rotterdam Dreamnight At The Zoo in 1998; "it was love at first sight". Ko went back to Amsterdam and talked to his general manager, and in the year 2000, they decided to join the project.

It was such a wonderful experience that they couldn't help themselves. And word spread to their colleagues from other Dutch Zoos. Now the project rapidly expanded: in 2001 to four more Dutch zoos – Rhenen, Hilvarenbeek, Apeldoorn and Amersfoort became partners in the project. And in



2002 again four more Dutch zoos; Emmen, Alphen a/d Rijn, Harderwijk and Arnhem also joined in Dreamnight at The Zoo. And then the project went international; the Aalborg Zoo in Denmark and the Antwerp Zoo in Belgium also organized their first Dreamnight at the Zoo.

In 2003 two French zoos, the Zoo de Pont-Scorff and Parc Zoologique de Lille joined Dreamnight. The project then went intercontinental in 2003 because of the co-operation with two zoos in Canada, The Vancouver Aquarium and the Magnetic Hill Zoo.

In 2004 we welcomed a lot of new partners: Zodiac Zoos in Holland decided to join the project with two zoos: Zoo Parc Overloon and Dierenpark Wissel. In the United Kingdom we got three new partners: Colchester Zoo, Chester Zoo and Marwell Zoological Park. In Greece Attica Zoological Park decided to join the project, just as Decin Zoo in the Czech Republic. In the United States, Roger Williams Park Zoo, Blank Park Zoo and Chattanooga Zoo decided to join us and in Canada the Jungle Cat World Wildlife Park. Fundacion Zoologica de Cali was our first partner zoo in Colombia, followed by the Parque Recreativo y Zoologico Piscilago - Colsubsidio. Wellinton Zoo is our first partner in New Zealand. In France we got eight new partner zoos: Parc Zoologique de Fréjus, Zoo de La Flèche, Zoo de Jurques, Zoo d'Amiens, Parc Animalier de Sainte Croix, Zoo de Doué la Fontaine, Terrarium de Kerdanet and Aliotis, l'Aquarium de Sologne. Budapest Zoo and Jásberény Zoo are our first partners in Hungary and Kolmården Zoo in Sweden. The Aachener Tierpark is our first partner in Germany.

This year the number of Dreamnight at the Zoo partners continues to increase: Oklahoma City Zoo, Sacramento Zoo, Glen Oak Zoo, Houston Zoo, Cleveland Metroparks Zoo, Columbus Zoo and Aquarium, Abilene Zoo, Riverbanks Zoo and Garden, Dickerson Park Zoo, Franklin Park Zoo and Sequoia Park Zoo in the U.S.A. decided to join our project, just like Poznan Zoo, Plock Zoo, Warsaw Zoo, Zoo Opole, Krakow Zoo, Zoological Garden of Polish Fauna, Gdansk Oliwa Zoo and Zoobotanical Garden of Torun in Poland. In the Netherlands Aqua Zoo Friesland, Sealife Scheveningen and Dierenrijk Europa became partners. Aguaviva Acuario y Museo del Mar is a new partner in Colombia, in England Newquay Zoo decided to join us and now we also have partners in South-Africa: Johannesburg Zoo, in Australia: Currumbin Wildlife Sanctuary, in Ireland: Dublin Zoo, in the Czech Republic: Brno Zoo, in Japan: Yokohama Zoological Gardens, in Mexico: Africam Safari and in Taiwan: Taipei Zoo. And the list continues to grow.

The International Congress of Zoo Keeping conference in Alphen (the Netherlands) in 2003 was one of those catalysts for the Dreamnight at the Zoo Foundation. Today, the Dreamnight Foundation has made contacts in five continents, 23 countries and 77 zoos, but, this is still the beginning: the goal of Peter and Ko and the Dreamnight Foundation is that all the zoos in the world know about the Dreamnight at the Zoo project. Of course, as Peter and Ko repeatedly told me - "it is their decision whether they want to join the project or not." How could you not?

And since museums, botanical gardens and parks want to be part of this life-changing experience for chronically ill and disabled children as well, from now on it will be known just as - Dreamnight. The criteria are that you have to commit to it every year, create a no cost evening, and believe in the dream.

But, a note of caution, it is like an addiction, once you have started you can never stop! In 2004 Dreamnight at the Zoo welcomed some 25,000 chronically ill and disabled children who along with their families experienced an exceptional evening, which means some 120,000 attended the event. Some came from as far as three hours away.

European zoos have had mayors, directors, docents and musicians welcome the children and families through the gates, sometimes with special ribbon cutting ceremonies. The children are given a magical evening and, in turn, the zoos and the staff are part of global project where wishes, miracles and passion happens.

The challenge now is for us to capitalize on the possibilities Dreamnight has created. The Center for Ecosystem Survival is working in partnership with the Dreamnight Foundation in a very special way. The Center is creating the first Dreamnight Rainforest in honor of the children, for their spirit and their courage. Capital will be raised through corporate sponsors, businesses and private donations to fund the first Dreamnight Rainforest conservation area. When history reflects back on this century, we will be recognized as the architects of change, as catalysts who raised the expectations of the world and of ourselves.

Peter and Ko asked me to encourage you to kindly visit the website of the project, www.dreamnightatthezoo.nl. It is in five languages: Dutch, English, German, French and Spanish. They asked me to ask you to think about Dreamnight, talk to your colleagues, then, join Dreamnight, then do Dreamnight.

*A father of a very ill and terminal child last year said,
"we have good days and we have bad days, but this was a wonderful day."*

You can write to this remarkable project at:

Dreamnight at the Zoo Foundation, Pootstraat 17 d, 3034 BA Rotterdam, the Netherlands or you can send an email to: info@dreamnightatthezoo.nl

(Editor's note: This paper was originally presented at the 2004 National AAZK Conference in Dallas, TX. We have updated the participating institutions from the Dreamnight website.)

Final Call for Presentations



The theme for this year's conference is "Bring Out Your Wild Side, New Orleans Style". We are looking for papers, posters, workshops or roundtables that include the inspirational and motivational aspects of the zoo keeping profession. Presentations involving all taxons are desired. Topics of interest include husbandry techniques, training, enrichment, education, exhibit design, conservation, research and professional development.

Include the following information with each abstract:

- Name and title of presenter(s)
- Institution
- Address, including email and phone number(s)
- Type of presentation (paper, poster, workshop or roundtable)
- Title of presentation
- Short bio of presenter (about 100 words, for introduction)
- Audio/Visual needs (not available for posters)

Abstracts should be 100-150 words. Abstracts must include in detail the significance of the topics to be presented along with results, conclusions or benefits of the work described. Poorly written or incomplete abstracts will be returned!

DEADLINE FOR ABSTRACTS: 1 JULY 2005

DEADLINE FOR PAPERS: 28 JULY 2005

Send abstracts by email to aazk2005@auduboninstitute.org Or, submit two copies of the abstract to:

Sheila Barrios

Audubon Zoo, P.O. Box 4327

New Orleans, LA 70178

Make certain to check out the conference website - **aazk2005.org** for lots of info on the conference, pre- and post-conference trip details, hotel info, registration forms, what to see in New Orleans, etc.

Sheraton New Orleans Hotel
500 Canal Street
New Orleans, LA 70130
(888) 627-7033 FAX (504) 561-0178
sheraton.com/neworleans

American Association of Zoo Keepers National Conference
August 28-September 1, 2005
Hotel Reservation Form
Reservation Deadline is: July 27, 2005

ONLY ONE REGISTRATION FORM PER ROOM. Fill it in completely with each roommate's information. All major credit cards are accepted for a guaranteed room. Room deposit is refundable if notice is received at least 72 hours prior to arrival and a cancellation number is obtained.

*** **DO NOT** send this form to the Audubon Zoo ***

	Main House	Club Level
Single/Double occupancy	\$99.00	\$129.00
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Name: _____

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Credit Card: Visa _____ MasterCard _____ AmEx _____ Discover _____

Credit Card#: _____ Exp.Date: _____

Name as it appears on card: _____
(please print)

Signature: _____

Always mention that you are with AAZK. All reservations are on a first-come/first-served basis. Hotel tax is 13% as well as \$3.00 occupancy tax. Conference rates are available from 25 August - 4 September 2005. Come early, stay late.

2005 AAZK National Conference
New Orleans, Louisiana
August 28-September 1, 2005



Conference Registration
(Please type or print clearly)

Name _____ Phone _____
Address _____
City _____ State/Province _____ Zip _____
Institution _____
Position/Title _____
Email address _____
Presenting a Paper/Poster/Workshop? _____ Bringing an auction item? _____
Vegetarian? _____

REGISTRATION FEES*	REGISTRATION DEADLINE IS 29 JULY 2005
AAZK Member	\$150 (US currency) _____
AAZK Spouse	\$150 _____
Non-member	\$200 _____

DAILY RATES	
Sun 28 Aug (Ice Breaker)	\$ 25 _____
Mon 29 Aug(Papers, Breaks)	\$ 35 _____
Tues 30 Aug(Papers, Breaks)	\$ 35 _____
Wed 31 Aug(ZooDay, lunch, auction)	\$ 35 _____
Thurs 1 Sept(Papers, breaks, awards lunch)	\$ 40 _____
Thurs 1 Sept(Banquet)	\$ 50 _____
T-shirt M ___ L ___ XL ___ XXL ___ <small>(\$15 at conference)</small>	\$ 10 _____
Jackson/Hattiesberg Zoos Pre-Conference	\$ 75 _____
Baton Rouge Post-Conference Trip	\$ 35 _____
Belize Post-Conference Trip	\$420 _____
<small>(Does NOT include airfare)</small>	

LATE FEE per person to week, daily or trip \$ 25 _____
TOTAL FEE ENCLOSED \$ _____

Check enclosed ___ Please make checks/money orders payable to: New Orleans AAZK 2005.
Please charge to: MasterCard ___ AmEx ___ Discover ___ Visa ___
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Registration fee **DOES NOT** include the cost of Conference Proceedings. **No refunds after 12 August 2005.** Send this form and all fees to: AAZK Conference Registration, c/o Cyndi Ratliff, Audubon Zoo, P.O. Box 4327, New Orleans, LA 70178.

Conference Notes and Updates

SPONSORS

The conference is a very costly production and we would appreciate any AAZK Chapter or group that would be willing to sponsor an event such as a break or hospitality night. Or, if you would like to make a donation to help cover expenses, it would be greatly appreciated. For more information, contact Gretchen Jeff (504) 212-5386 or hoofstock@auduboninstitute.org<

EXHIBITOR'S TABLES

There is space in the Exhibitor's Hall for Chapters or groups interested in selling or displaying their products or causes. Cost per table:

\$50.00 for non-profit groups such as AAZK Chapters or TAGS

\$100.00 for profit groups such as wildlife artists, suppliers, etc.

Please contact Margie Parr at (504) 212-5373 or Lisa Laraway at llaraway@auduboninstitute.org<

PRE-CONFERENCE TRIP

The destinations for 27-28 August are the Jackson Zoo in Jackson, MS, then on to the Hattiesburg Zoo, Hattiesburg, MS. Price of this trip is \$75.00. Includes transportation, two zoos, hotel, lunch, dinner and breakfast. Space is limited to 25, so sign up early! For more information contact Jaime Hayslette at aazk2005@auduboninstitute.org<

POST-CONFERENCE TRIPS

On 2 September, the destination is the Baton Rouge Zoo. Price of this trip is \$35.00 and includes transportation, lunch and the zoo. Space is limited to 20, so sign up early! For more information contact Jaime Hayslette at aazk2005@auduboninstitute.org<

BELIZE: A second post-conference trip will be offered to Belize from 2-6 September. Cost of this trip is \$420/person. Space is limited and reservations are on a first come, first served basis. After booking your international flight to Belize City, you **MUST** contact Mike at info@belize-ecotours.com with your flight info so he can arrange the rest of the trip. For more information on the Belize trip, go to the AAZK website at www.aazk.org and look under the Reminder Board on the right on the home page for "Belize Trip". Information is also available in the February 2005 issue of *AKF* on page 59. Or contact Jaime Hayslette at aazk2005@auduboninstitute.org<

CHAPTER CHALLENGE

The New Orleans Chapter of AAZK, hosts of the 2005 National Conference, will continue the Chapter Challenge established by the Cleveland Conference Committee. In order to keep delegates' costs to a minimum while ensuring the best possible conference, we are encouraging all AAZK Chapters to donate. Any Chapter donating \$250.00 or more will be entered into a drawing. The winning AAZK Chapter will receive one full registration and one double-occupancy room for five nights at the Sheraton New Orleans Hotel (28 August - 1 September). AAZK Chapters should look for a letter detailing all information soon.

AUCTION ITEMS

If you are donating an item for the auction, it would be great if you could send it early to: Audubon Zoo, c/o AAZK, 6500 Magazine Street, New Orleans, LA 70118. For auction info contact Trudy Dorand at tdorand@auduboninstitute.org<

REACTIONS

A Question and Answer Forum for the Zoo Professional on Crisis Management

By William K. Baker, Jr., Curator
Panthera Research, Maumelle, AR



Question

Our facility has been having problems with after-hours vandalism; can you make any recommendations on how we can address this?

Comments

Maintaining effective security at a zoo can be especially challenging due to the nature of public access to our facilities. Ideally we want to strike a balance between a pleasant atmosphere for our visitors and maintaining a level of security that protects not only them, but the animals in the collection and the physical property as well.

Generally speaking, effective security measures during the night work well during daytime as well and vice versa for daytime measures. The key difference is the "intensity" of your security, raise it at night and lower it during the day. What follows is an ever-growing list that I use, but if I had to single out the three most important points, it would be: locks, lights, and perimeter security; followed by a human security presence on the property patrolling at irregular times and unpatterned routes.

BASIC SECURITY

- Inspect primary containment of the exhibits as well, which by design lends itself more towards preventing animal escape, rather than prevention of human entry or releases.
- Inspect all locks, chains, and deadbolts. Perform maintenance on an annual basis or as needed. Inferior quality or locks in poor repair should be upgraded and replaced.
- Perform a key inventory and develop a key control program that restricts key access.
- Areas that restrict public and staff access should be clearly marked with the appropriate graphics to indicate the level of access. Staff members should adhere to protocols.
- Staff members should avoid shortcuts, which result in open or unattended gates or entry points. Gates should be secured whenever they are not in immediate use by the staff.
- Lighting at night along the perimeter should be the strongest followed by entry points into the facilities and the animal service areas. Ideally, all exhibits should have the ability to be lit in an emergency as well. Regular inspections and maintenance are key elements to maintaining this deterrent.
- Solar power should be considered a viable alternative for lighting public and staff work areas, as well as maintaining hot-wire systems for animal exhibits.
- Develop alternate forms of electrical and water supply for emergency operations.
- Consider purchasing a stand-by generator to maintain vital services.
- While landscaping is a key component of the natural look of a zoological facility, it should not interfere with security measures, provide potential hiding places, or invite entry along the perimeter of the facility. Inspect on a regular basis.
- Trash and debris should be removed at all times, as they provide potential hiding places and can interfere with security measures.
- Inspect storm drains, sewers, underground service areas; or anything else, which provides access out of your facility. If something is designed to allow passage out, it can surely be used to get in. Cover access points with hinged rust-resistant steel grates equipped with water-resistant high security locks that are designed to deter cutting.

- Inspect and reinforce all public areas equipped with Lexan®, Plexiglas®, or tempered glass. Typically these will be found in or near exhibits for public viewing. Inspect regularly and upgrade as needed to reduce the risk of potential vandalism.
- Consider the use of burglar bars and security lighting near any administrative, laboratory, research, or veterinary service buildings. They should be considered high-profile targets.
- Potential staff members should undergo extensive background checks prior to hiring. This establishes identity, credentials, and a proven work history. Verify all identification with the issuing agency through your Human Resources Department.
- Staff members should always be in some level of issue uniform.
- Staff members should be issued tamper-resistant identification cards and it should be mandatory that they be worn on the uniform in the workplace.
- Always introduce new members of the staff; it's not only courteous, it's good security.
- Encourage staff to "be aware" of unusual activity or people taking pictures with sensitive areas as background. Advance surveillance activities should be an area of concern.
- Unknown persons in restricted areas should be challenged and identified.
- Access to a facility by volunteers should be closely controlled and monitored.
- Contractor access should be controlled and monitored through issued temporary identification cards. Also, contractors should always be accompanied by an animal management staff member when entering animal work related areas.
- After-hours access to a facility should be rigidly controlled. There should be a provision for sign-in/sign-out procedures with visual confirmation by the night staff. Especially for contractors.
- Commercial delivery vehicles should be clearly marked and the drivers should be in a recognizable uniform. Identification should be confirmed and packages inspected.

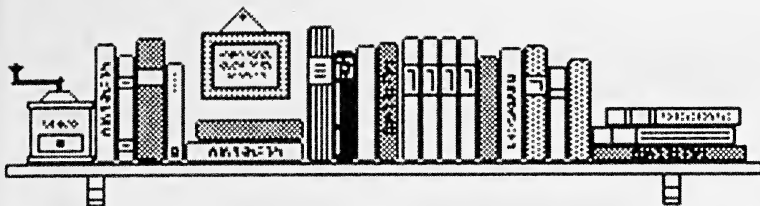
ADVANCED SECURITY

- Fence perimeters with a substantial 8-foot (minimum height, not chain link) fence, with a top, which discourages climbing over. This can be done with tasteful architecture. While chain-link fencing satisfies USDA requirements, it is remarkably easy to climb.
- Insure exit gates can be opened wide in the event of a rapid evacuation. Consider installing extra-wide gates, which are normally closed, but which can be opened to allow large crowds to pass through quickly. Be sure they open toward the outside of the perimeter.
- Utilize architectural techniques to break up and channel crowds to exits and parking areas. You should have at least two, wide avenue exit routes, from your property, opening on different sides of the perimeter. One is for emergencies only.
- Turnstiles are strongly discouraged as they prevent rapid evacuation of visitors.
- Public parking should be restricted to a distant location if possible, to avoid direct access within 300 feet of an occupied staff building or complex area.
- Staff members should be provided with a secure parking area located within the perimeter that requires coded access and has minimal gate access.
- Minimize gates in back lots (parking), and remote areas. Use good tamper-resistant locks.

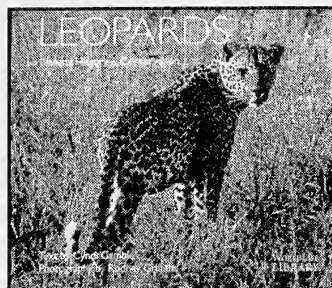
For August Issue: What are the latest trends in security and can they be effectively applied to a zoo environment?

If you would like to submit a question for this column or have comments on previously published materials, please send them to AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614 Attn: Reactions/AKF

(About the Author: Since 1985 Bill has been active in the fields of science, zoology, and wildlife management. His education and experience include a B.S. in wildlife management and post-graduate studies in zoology, Lab and Museum Assistant, Shoot Team Leader, ERT Member, Large Mammal Keeper, Senior Keeper, and Zoo Curator at various zoological facilities. His area of research is crisis management in zoological institutions, which draws upon practical experience and training as a Rescue Diver, Hunter Safety Instructor, NRA Firearms Instructor, and Red Cross CPR/First Aid Instructor.)



Book Reviews



LEOPARDS: Natural History & Conservation

Text by Cyndi Gamble

Photographs by Rodney Griffiths

2004 Voyageur Press, 123 North Second Street

Stillwater, MN 55082-5002 www.voyageurpress.com

ISBN# 0-89658-656-1

10 x 9 inch format; 48 pgs; 30 color photos,

index, bibliography

Price: \$12.95 paper

Leopards details the characteristics and ecology of the three species of this big cat - the leopard (*Panthera pardus*), the snow leopard (*Uncia uncia*) and the clouded leopard (*Neofelis nebulosa*). This small, handsome volume contains a surprising amount of information and some wonderfully dramatic photographs. It is an excellent introduction to the species and the author presents the information in an interesting style and easily accessible format. The author also includes a strong conservation message, explaining the elements contributing to the cats' endangered status. A page showing range distribution maps for all three cats and a Leopard Facts page are useful references. A recommended reading list is also included. This book is a part of the WorldLife Library series.

RIGHT WHALES: Natural History & Conservation

By Phil Clapham

2004 Voyageur Press, 123 North Second Street

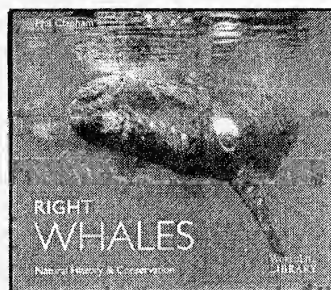
Stillwater, MN 55082-5002 www.voyageurpress.com

ISBN# 0-89658-657-X

10 x 9 inch format; 72 pgs; 50+ color photos,

index, bibliography

Price: \$16.95 paper



Right Whales covers the characteristics (life history, social behavior, feed strategies, reproduction, mortality) and ecology of these leviathins which are found in all temperature oceans around the world. There are actually three sub-species of right whale: North Atlantic right whale (*Eubalaena glacialis*); North Pacific right whale (*Eubalaena japonica*); and Southern right whale (*Eubalaena australis*). Right whales got their name from whalers who considered them "the right" whales to hunt, since they were rich in blubber, being slow swimmers they were relatively easy to catch, and they floated after being killed. Like other books in the WorldLife Library series, *Right Whales*, contains lots of information, a Right Whale Fact Page, as well as clearly defined range distribution maps. The book's photographs, by a number of well-known nature photographers, compliment the book's format. Author Phil Clapham also discusses the serious threats these whales face and informs his readers what can be done to protect them. Clapham is also the author of *Whales of the World* and *Humpback Whales*. He directs a whale research program in Woods Hole, MA and is a Research Associate with the Smithsonian Institution in Washington, DC.

CPR Grant Project Update:

Houston Zoo Butterfly Conservation Committee **Nobody Doesn't Like Butterflies: Leading Zoo Guests in Conservation**

*Project Progress Report by Kristin Moro, Keeper Natural Encounters
Houston Zoo, Houston, TX*

The Beginning

The Houston Zoo Butterfly Conservation Project is a new interdisciplinary project directed toward local conservation through field research, guest education, habitat restoration, and reintroduction. The Natural Encounters Department was created at the Houston Zoo to integrate education, conservation, and visitor experience under one roof. In addition, a core project for the Natural Encounters team members is to create and hold keeper-lead conservation projects both on and off zoo grounds to demonstrate for zoo guests how easy it is to become involved in local conservation. Membership in both of these groups inspired me to become involved in the nationally recognized monarch butterfly (*Danaus plexippus*) conservation project known as Project Monarch Watch.

In 1991, Monarch Watch was initiated as a research project in collaboration with Brad Williamson (Olathe East High School) and Dr. Karen Oberhauser (University of Minnesota). The project uses volunteer butterfly taggers to monitor the migration patterns of monarch butterflies from Canada to Mexico and back each year. Each winter their scientists visit monarch wintering grounds in Mexico and look for monarchs that have been tagged all over the United States and Canada. This allows them to gain knowledge on the distance that monarchs travel.

The Houston Zoo began their Monarch Butterfly Conservation Project in July 2004. We purchased all the items we believed necessary for the project. Through the Monarch Watch website, we obtained the 2004 Monarch Watch Tagging Membership, 25 additional tags, Monarch Watch Season Summary (2001), five butterfly nets, a Monarch Annual Cycle Poster, two monarch butterfly net houses, and one monarch butterfly feeding kit. We chose to use the Monarch Watch website to purchase our supplies as all the profits went back into the Monarch Watch program.

A Butterfly Committee made up of Houston Zoo team members began researching when the monarch butterfly migration would be passing through the Houston area, and what the best methods for finding monarch butterflies might be. Early on, we had concerns that there would not be enough butterflies on zoo grounds as we only had two nectar gardens. We contacted several local butterfly organizations for assistance on where we might find other monarchs. We learned that while migrating, monarchs do not have specific roosting sites and that their locations are random on any given day. When monarch migration and the tagging season arrived, however, we need not have worried as there were plenty on zoo grounds.

Houston is situated in the Texas coastal flyway for migrating monarchs. Monarchs reach Houston along this flyway beginning in late October and stretching on into mid-December. Some scientists believe that there might be a non-migrating population of monarchs that remain in Houston. It will be interesting to see if the monarchs tagged at the Houston Zoo are migratory or not.

Teaching Opportunity

In October 2004, the Education Department of the Houston Zoo held a conference for elementary, middle, and high school teachers to visit the zoo and learn how to incorporate wildlife and conservation issues into their class curriculum. We decided to teach a workshop on the Monarch Watch program and encourage teachers to get their classes involved.

Our workshop had 30 participants interested in using butterflies in the classroom. The day before the class, we captured some monarch butterflies and some native ‘mimic’ butterflies for demonstrating butterfly tagging and identification lessons. Our full presentation included natural history information, native plant use and identification, an overview of the Monarch Watch program, and a tagging demonstration. We also included a project for use in the classroom by demonstrating how to make paper bookmarks embedded with milkweed seeds that the students can plant in their yards. Monarch larvae appear to feed exclusively on milkweeds in the genus *Asclepias* and several other genera of milkweeds in North America, making this a vital plant for monarch survival.

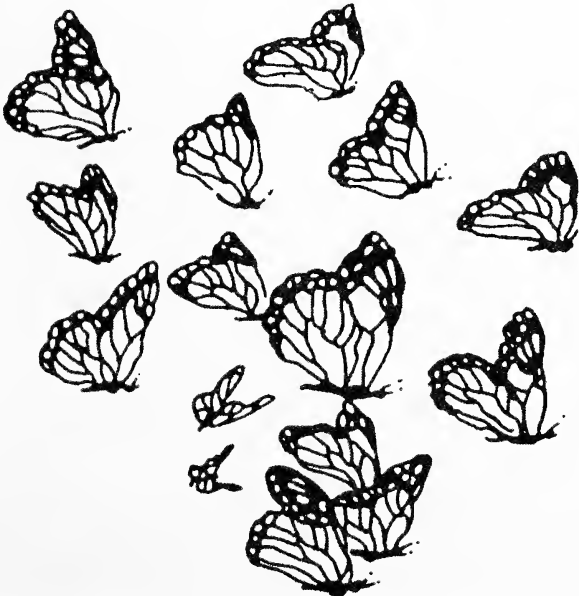
Tagging

Once our tags arrived, the members of the Butterfly Committee plus some other interested staff members began tagging in earnest. Although we looked all over zoo grounds, the two main locations we were able to successfully catch and tag monarchs were in our two nectar gardens. Zoo visitors were highly interested in the project and we learned quickly that having someone there exclusively to interpret what we were doing was very helpful. Visitors were encouraged to take a close-up look at the tagging process and children were given small butterfly shaped nets to “help” us try and catch butterflies. In addition, we talked to visitors about our native plant nectar gardens and encouraged them to try it in their own gardens to attract butterflies. We also added a page to the zoo website explaining the project and encouraging visitors to keep their eyes open for migrating monarchs. This can be viewed at: http://www.houstonzoo.org/Animal_News/Monarch_Butterflies.aqf

In total, we were able to tag and catch 26 butterflies on zoo grounds. Each day we tagged between two and five butterflies. We look forward to seeing the results from the 2004-2005 winter tag count in Mexico to see if any of the Houston Zoo monarchs made it.

This year was a great learning process for the Butterfly Committee. Next year, in addition to the educator’s workshop, we plan to hold more formal tagging sessions, possibly advertised to zoo members for participation. We thoroughly enjoyed assisting Monarch Watch this season and plan to continue for many seasons to come.

(This project is partially funded by a Conservation, Preservation & Restoration Grant from the American Association of Zoo Keepers, Inc. Grant application information may be found on the AAZK website at www.aazk.org)



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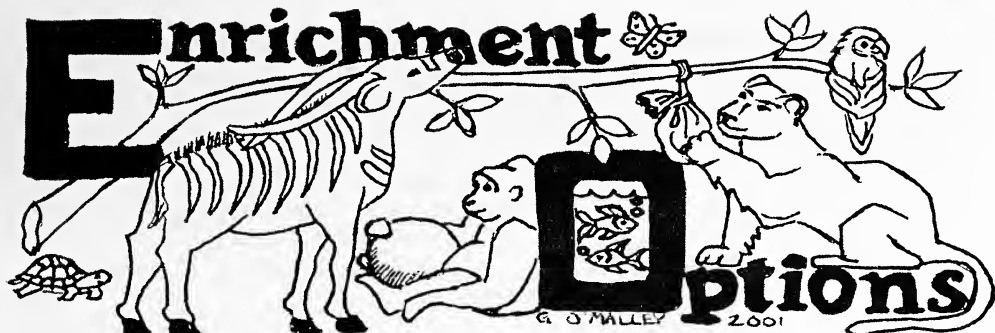
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*EO Editors - Dawn Neptune, Utah's Hogle Zoo
and Rachel Cantrell, Disney's Animal Kingdom*

PVC Jacks

*submitted by Danelle and Micala Teetzen
Enrichment Volunteers
Sedgwick County Zoo, Wichita, KS*

Kristy Plotner, Sedgwick County Zoo zoo keeper, came up with this idea for cattle and horses. It was pretty simple to construct. We used 2" PVC pipe and cut six [pieces at 12" each. Then we randomly drilled 4-5 holes in each piece and sanded the holes for a smoother edge. The tricky part was to figure out how to attach the two T connectors together to form the base of the jack. We put a small fitted piece of 2" PVC between the T's to hold them securely and held it all together with a bolt (see Figure 1).

Figure 2 is the pattern we used to cut the small piece of PVC. Just wrap it around the PVC, trace the pattern, and cut it out.

When constructing the jack, push the tubes in tightly to the base, but put the end caps on loosely so that it is easier to refill and clean them.

You can put grain in them or produce if you have big enough holes. The whole thing can be scorched for a more natural look.

We put the jacks with a Boomer Ball® to complete the "ball and jacks" game look for Play Day, our artificial enrichment day.

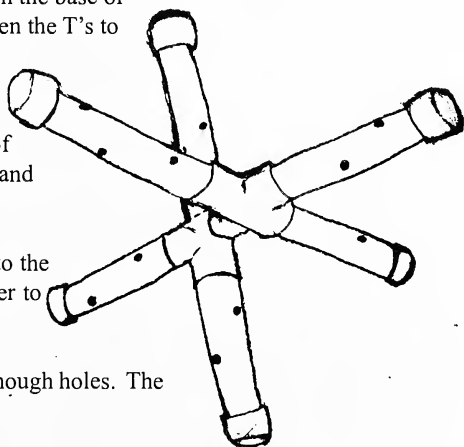


Fig. 1

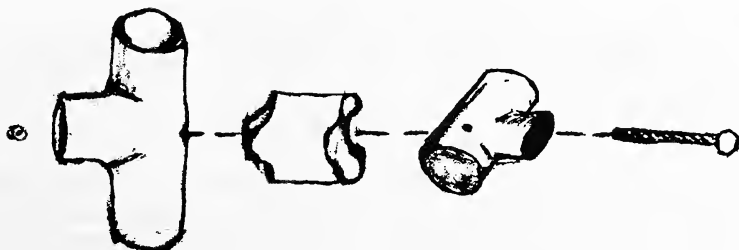




Fig. 2

Please note that pattern above is shown here at 56% of original size due to *AKF* page size constraints.

(Ideas appearing in this column have not necessarily been tested by the editors for safety considerations. Always think ahead and use good judgement when trying new ideas. You are invited to submit materials for the Enrichment Options Column. This might include recipes, toys, puzzle feeders, olfactory enrichment ideas, etc. Drawings and photos of enrichment are encouraged. Send to: AKF/Enrichment, 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054; or email to akfeditor@zkscoxmail.com Eds.)

2005 New Orleans Conference Enrichment Committee Program - Videos Wanted!

Are you planning on attending the National AAZK Conference in New Orleans? The AAZK Enrichment Committee would like to invite you to bring videos of enrichment at your facility to be shown on Video Night! Videos should be no longer than 10 minutes and contain contact information. Please consider bringing an extra copy of your video to donate to the *Shape of Enrichment* video library. See you at Video Night!!

Zoo Literature Website Available

A new website dedicated to zoo literature has been launched at www.zooliterature.co.uk< On this brand new website you will currently find: 1) An introduction in English, German and Dutch; 2) 488 guidebook covers from 180 animal collections, with more to come; 3) 63 book covers, with more to come; 4) IZES and Bartlett Society journals with full article index to every issue; 5) Illustrated coverage of rare marine mammals in captivity; and 6) Digital photos from the 2003 zoo literature exchange event in Vienna and the most recent one in Arnhem. This site will continue to be updated with new information so check it out frequently. *from International Zoo News No. 48, Oct-Dec 2004*

Amazon.com Users-- Don't Forget the AAZK Connection

Just a reminder that if you regularly (or even occasionally) purchase items on *amazon.com*, there is a way you can also help out the Association while you are doing your shopping. If you go to *amazon.com* from the AAZK Home Page (www.aazk.org), the Association will receive 5% of the cost of your purchase. The *amazon.com* icon is at the bottom right of the AAZK Home Page. And the percentage from purchase of goods is on all items you purchase there - books, music, etc. So next time you want to do a little online shopping at *amazon.com*, get there through the AAZK website and help out your professional organization.

Poopology 101:

A cooperative comparison of dietary effects on American black bear (*Ursus americanus*) fecal consistencies

By

Jason T. Moore, ZooKeeper
formerly of Topeka Zoological Park, Topeka, KS
currently at Cameron Park Zoo, Waco, TX

Abstract

This paper grew out of a side discussion on bear fecal consistency between several keepers at the 2003 AAZK conference. The keepers, at different zoos, had all noted a variety of fecal consistencies throughout the day from their animals and considered the possibility that different portions of the diet (fruit/vegetables, fish, and pellets at all institutions) might play a role. The Topeka Zoo has a long history with the Zupreem® diet company, aiding in the development and testing of pelleted diets. Coincidentally, the company approached the Zoo shortly after the AAZK conference to test a new omnivore pellet variation. We seized the opportunity to investigate the effects of diet variation on fecal consistency in our 1.2 American black bears (*Ursus americanus*).

Several diet variations were offered, testing three omnivore pellet formulas, - the one originally used by the Zoo, the experimental diet, and Zupreem®'s previous pellet formula as a control. We also tested the inclusion and exclusion of fruit and vegetables and fish. Finally, the experimental pelleted diet was offered at 150% the amount (and calorie intake). Fecal piles were rated on an arbitrary but defined scoring system daily, allowing several days between trials for animals to adjust to each new diet. Food was offered once daily. Results indicated little effect on consistency between diet variations. The notable exception was the trial increasing the amount to 150%. Average scores for this trial were somewhat lower, suggesting excess calorie intake, and therefore decreased gut retention time and increased moisture content. The lack of variation amongst the other diets, even between entirely pelleted rations and those with fruit, vegetables, and fish, suggest that observed variation over the course of the day is due more to variation specific to the animal – maybe differential digestive rates, water intake patterns, or even a conditioned physiological response to external cues or routines – than to the diet offered.

Introduction

At the 2003 AAZK (American Association of Zoo Keepers) National Conference, there was a conversation between keepers from several different institutions regarding variation in fecal consistency in the bears they were responsible for. All had noted the phenomena at their respective institutions. Several possible causes were discussed, from diet to time and number of feedings to individual variation. But no consensus could readily be reached.

Shortly after the conference, the staff at the Topeka Zoological Park was approached by a representative (Dr. Mark Morris, DVM) of the Zupreem® company, a manufacturer of commercial animal diets (800-345-4767, P.O.Box 2094, Mission, KS 66202, or <Zupreem.com>). The company wanted to test an alternative variation on their basic omnivore pellet, using the Zoo's 1.2 American black bears (*Ursus americanus*). Years before, the two organizations had worked together to formulate the original omnivore diet. The company was interested in renewing that relationship.

The staff certainly couldn't ignore such a happy coincidence - nor the opportunity. The project was adopted enthusiastically, and even extended a bit to answer some staff questions on top of those proposed by the Zupreem® diet trial – many were the same questions posed at the conference.

Fecal deposits are a spectacular diagnostic tool, used extensively in research and, of course, in zoos. It is noninvasive and consistently available from (at least with feeding high-metabolism animals). And, of course, collection is easy and cheap. Research uses include simple detection of the presence of an animal species within a given area and use patterns of that area to hormone analysis and hormone cycling (Mazrimas-Ott, 2004) to identifying gender and individuals by DNA markers (Wasser et al, 2004 and Burnham, 2004, personal communication). Feces is, of course, routinely used in zoos to assess daily health of animals and to periodically screen for parasites, etc.

The Zupreem® representative brought with him a tested scoring system to characterize fecal consistency. The system requires a judgment call, but consistently applied criteria for each score provides a standardized rating that can then be objectively compared. The general idea can be applied to many animals, with appropriate modifications. Roeder (2000) provided a similar rating system for ruminants. The system was actively recommended when new food items were offered and on a routine basis to provide early detection of health problems, especially for reclusive animals (Roeder, 2000). It is important to note that fecal consistency is a product of water content (Roeder, 2000 and Morris, 2004, personal communication). Since most animal pathologies result in some sort of osmoregulatory or digestive variation, this makes the method a powerful tool for early detection of problems (Roeder, 2000).

Animal & Exhibit Background

The Topeka Zoo has 1.2 American black bears (*Ursus americanus*). The females are litter-mates, born in captivity between eight and nine years ago. The male is between three and four years old, a wild-caught orphan from a rehabilitation center in Alaska. The male was visibly a little smaller than the females, but growing rapidly. At the time of the study, the male had been partially introduced to the females. All three animals were allowed on exhibit during the day. The three animals were fed together on exhibit with food scattered in small piles over entire yard. Overnight one animal was separated from the other two to limit aggression. The animal housed separately was determined on a weekly rotation, so that the male had contact with no more than one female overnight. The females typically formed an alliance and act as a single social unit. Separation prevented the females from “ganging” up on him when staff was not there to respond. The animals have since been fully introduced and are separated only when they are locked in the holding area.

The exhibit is one of the larger black bear exhibits in the United States, encompassing roughly 2200m². (20,000 sq. ft). It is enclosed with heavy gauge chain-link fence and several strands of hotwire (to prevent climbing). The exhibit itself has a pool, a constructed rock den, and a number of large rocks, logs, living tress, and other structure. The entire exhibit has a natural substrate, dominated by grass with several large trees and areas of brush. All trees near the fence line are hotwired to prevent climbing. Animals have access all year long and are therefore exposed to a natural seasonal cycle of temperature, weather, and vegetation (on which they freely browse).

The holding area consists of four concrete and heavy mesh stalls and a service area, sheltered but not totally enclosed. There is also a reserve holding yard approximately 5m x 10m (16.4ft. x 32.8ft.) that is available for isolating animals if necessary.

Methods

Fecal piles were rated daily between 0830 and 0900hrs, before maintenance was performed. Rating was done by a walking survey of the exhibit yard, reserve/holding yard, and holding enclosures, so each pile could be inspected. All but the final trial were rated by the representative from the Zupreem® company (Dr. Morris, DVM), accompanied by a keeper. The final diet trial scoring was conducted by the primary keeper in the area, who had observed the process and score evaluation multiple times in previous trials with the Zupreem® company representative. Other experiments requiring either estimation or subjective scoring have been shown to have greatly increased accuracy and consistency with even a small amount of previous training and experience. (Martin & Bateson, 1993 and Dolloff, Kershner, & Thurow, 1996 in Murphy & Willis, 1996). The same has been noted even in routine enrichment assessment (personal observation).

Scoring System

The fecal piles were rated on a simple numbered scoring system, with defined criteria based on appearance and consistency (Table 1). The system is similar to the general process used years before in previous partnerships between the Zoo and the Zupreem® company. Potential rating scores ranged from "1" to "4". Fractional numbers (usually halves or quarters of a point) were allowed to indicate an intermediate consistency that showed characteristics of both the higher and lower number. Lower scores indicate a looser or more fluid consistency. Generally, this means a higher moisture content in the feces. Higher scores indicate a more solid form and increased firmness. (See Fig. 1.) It is worth noting that neither endpoint ("1" or "4") was reached, suggesting that the system possessed adequate range.

Fig 1. Fecal pile scoring system.

- 1 – Runny, watery
- 2 – Loose, "goopy", like pancake batter, maybe with some solid elements
- 3 – Formed pieces, holds together when kicked, but still moist and sticks to objects (e.g. shoes)
- 4 – Formed, hard, dry, bounces off objects when kicked

Controls for bias

Research in a zoo setting is frequently more reminiscent of fieldwork than lab research. The large, complex, fairly naturalistic and outdoor nature of the exhibit meant a number of parameters could not be absolutely controlled. Examples include temperature (and therefore metabolism), browsing on exhibit vegetation, availability of vegetation species, and individual variation.

Bias was controlled for in several ways. Bias from individual animal variation was curtailed by lumping together all the samples for a given day (necessary anyway since individual animal's piles could not always be differentiated). Training and experience helped eliminate a lot of observer bias. Diet-induced bias was reduced by:

- 1) Allowing several days between trials for animals to adjust to new diet at each trial
- 2) Made observations of piles when bears still on base diet as well as trials
- 3) All observations made within two months (similar season and therefore available foliage). It was late fall; there was little palatable foliage available.
- 4) Elimination of food enrichment for trial period

Tests and test schedule

Five unique diet combinations were tested for subsequent comparison to one another:

- 1) The base diet for the animals (omnivore pellets, fruit/vegetables, fish)
- 2) Zupreem®'s existing omnivore pellet only (no whole food items)
- 3) Zupreem®'s experimental diet only (no whole food items)
- 4) Same Zupreem® experimental diet (only), but at 150% the amount (more calories)
- 5) The Zoo's original omnivore pellet, only (no whole food items)

The diet trials were spread over the months of November and December (see Fig. 2.). Several days were given between trials in order to allow the animals' systems to adjust to the new diet variation. Browsing by the animals was limited due to the dearth of live plants so late in the season.

Fig. 2. Schedule of diet trials.

November 2003						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
December 2003						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1		3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
			Base diet			
			Existing Zupreem® pellet, only			
			Zupreem® experimental pellet, only			
			Zupreem® experimental pellet, only, at 150%			
			Zoo's omnivore pellet, only			

Results

Individual scores were analyzed to obtain an overall trial mean, trial daily mean, range of scores, and mean number of piles per day for each feed trial. Results are summarized in Table 1. Sample sizes were too small and irregularly distributed to justify more profound statistical tests.

Table 1: Summary of results

<u>Diet Trial</u>	<u>Trial mean</u>	<u>Avg. daily mean</u>	<u>Range</u>	<u>Sample size (# of piles = n)</u>	<u>Days</u>	<u>Piles/day</u>
Zoo's base diet	2.716	2.725	2.0-3.5	22	2	11
Zoo's omnivore chow only	2.704	2.722	2.0-3.0	27	3	9
Zupreem® existing diet	2.769	2.758	2.0-3.5	107	7	15.3
Zupreem® trial diet	2.742	2.742	2.0-3.5	95	8	11.9
Zupreem® trial diet (150%)	2.554	2.557	2.0-3.25	33	2	16.5

A few quick observations can be made based on this data:

- 1) All the trials have a very similar range of scores (from 2.0 to 3.0 or so)
- 2) The trial offering the Zupreem® experimental diet at 150% the base amount showed an appreciable decrease in mean score (i.e. generally looser). All the other trials showed remarkable similarity.

- 3) The above statement (#2) holds true both for the overall mean and the average of the daily means for each trial.
- 4) The existing Zupreem® diet and the experimental Zupreem® diet at 150% the base amount yielded a greater mean number of piles per day (15-17) than the remaining diets (9-12).

Although not actively observed in a structured manner, two subjective observations were made. First, firmer piles (higher scores) generally seemed to have more visible fibrous matter (grass, mostly). At this time of year, most of the grass ingested would be quite dry. It is unclear whether piles with high grass content were firmer because of the inclusion of the grass, or that the grass was cleared out of the system when the bears passed firmer stools.

Secondly, there was no noticeable change in the volume of feces removed from the exhibit, holding area, etc. for any particular trial. The same held true regardless of the scores, as well. Generally, the keeper would pull very close to a quarter of a five-gallon bucket out of the exhibit daily. Even the increased diet (Zupreem® experimental diet at 150% base value) resulted in no noteworthy increase in fecal volume.

Discussion

These results suggest that fecal consistency has little to do with diet constituents. Regardless of diet items, fecal consistency varied only minutely. The only noticeable effect on fecal consistency came with the increase of the experimental diet to 150% the base amount of food. This is probably due to the increased calorie intake. The animal's digestive process has to take out a lower proportion of the calories in the food in order to meet the immediate biological capacity (maintenance and fat production) of the individual. Consequently, only the most efficiently accessible nutrients are absorbed and less digestion is required. The remainder, therefore, passes through at higher velocity. As gut retention time decreases, water resorption decreases. More water remains in the feces and therefore it has a looser consistency. This is consistent with Roeder (2000), albeit due to a different cause.

Provided that caloric intake does not greatly exceed metabolic capacity, variation in fecal consistency as noted by the various keepers at the 2003 AAZK conference must be due to other factors besides diet content; and to factors other than feeding frequency, since different institutions fed on different schedules (mostly either once or twice). Furthermore, the daily variation reported by the same keepers would suggest that there is more involved. Since the phenomena occurs across individuals at several institutions, it also seems to go deeper than individual variation. Rather, it seems likely that the daily variation is in response to either the daily rhythm of the animals or to outside stimuli. Even browsing on a daily schedule may make some difference, since firmer samples tended to show more undigested vegetation. It is even possible that some looser samples are the product of a Pavlovian-type response to regular feeding or a cue associated with feeding, such as keeper presence.

Amount of fecal material collected daily, measured by proportional volume of a five-gallon bucket, also did not seem to vary much across the trial. The explanation is less clear. Looser samples would have a greater amount of undigested matter and a greater water content and therefore a greater volume than would be expected due to compressibility. Drier samples, though with less matter and water content, would not compact as well. Consequently, it would appear to have a greater volume. Mass measurements, if conducted, would also be difficult to interpret due to the confounding effect of varying water mass. Measuring the dry mass might shed some light on the problem, but was beyond the scope of this project. In all cases, the amount of vegetation ingested, and especially undigestible cellulose, would have to be controlled for.

The increase in the number of piles per day for both the Zupreem® existing diet and the experimental diet at 150% the base amount compared against the remaining diet variations is curious and quite unexpected. It seems unlikely to be related to the amount of dietary intake, since it occurred independently of calorie content and without a change in total amount. This does, however, indicate

a greater number of smaller piles. Nor does it seem likely that the exclusion of whole food items is responsible, since the base amount of the experimental Zupreem® diet nor the Zoo's base omnivore pellet shows the same increase. The phenomena may have something to do with the nutrient content (specifically fat and fiber) of the different pellets and amount ingested relative to the animals. Specific testing would be required to determine these effects though.

Potential Bias

As discussed previously, research in a zoo setting is similar to fieldwork and bias cannot be entirely eliminated, particularly in a large outdoor exhibit, exposed to the elements, with a variety of cover and natural vegetation. The very elements that improve the exhibit for education and the animals' psychological welfare are those that make it like field research. Potential biases include:

- 1) Seasonal – vegetation (no strict control), temperature/metabolic (physiological shift to put on fat reserves for winter), hormonal (not reflective of entire year)
- 2) Individual variation –metabolism
- 3) Subjective rating (observer bias, especially final trial being scored by another observer)
- 4) Rotation of animals – therefore variable access to vegetation, activity levels
- 5) Fecal dehydration – did the pieces dry and therefore receive a higher score?
- 6) Water intake – variable amounts of water ingested
- 7) Osmoregulation – differential processing of available water
- 8) Genetics – two animals very closely related, weight results
- 9) Sex – any sex differences would be weighted towards females
- 10) Food choice -selection or access to only certain portions of diet

Some of the bias was controlled for (see above). For example, the potential for bias between observers due to judgment calls is mitigated by training the observers and providing some common experience to make sure all are scoring consistently. Some factors had to be assumed to control themselves. Or more precisely, to be consistent within themselves. Vegetation is a good example. Animals had variable access (where one animal was locked inside overnight) to and preference for vegetation. But the late-season dearth of fresh plants and lumping all the samples together, and a daily rotation of which individual was off-exhibit overnight should have minimized or directly cancelled individual effects of vegetation. Other sources of bias just have to be accepted. Individual genetic and resulting physiological or metabolic differences cannot be controlled within one study. More studies, with more individual animals, however, could pool a larger sample and mute individual effects (provided similar methods are consistently used).

Still outstanding are seasonal metabolic effects. Animals living in strongly seasonal climates frequently have strongly seasonal shifts in behavior and metabolism. American black bears are no exception. Their whole metabolism shifts again and again to process, assimilate, and conserve energy. During the late summer and through the fall, the animals actively seek out as much food as

possible to build fat reserves for the winter. And, of course, in periods of sufficient food shortage they go into a sort of torpor to during the winter to conserve energy. These drastic physiological and behavioral changes may have a significant effect on the speed and the way food is processed, and therefore the quantity and consistency of fecal material. This study occurred within one season and can be applied directly only to that season. In order to generalize the findings, they would have to be replicated (with appropriate controls) over a range of seasons.



Conclusions

The data and its interpretation suggest that fecal consistency probably has little to do with diet content, at least within the range of that typically offered in American zoos. It also suggests that there is no obvious effect with the inclusion or exclusion of whole food items in addition to the pellet base. It does, however, suggest that calorie content affects fecal consistency by influencing gut retention time and therefore moisture content of the feces.

As with any properly evaluated study, the study opened up a plethora of new questions. Some of these follow. Each would require its own separate test. And each would add a little bit more to our understanding.

- 1) Seasonal (metabolic) influence?
- 2) Access to vegetation?
- 3) Time of day (diurnal cycle)?
- 4) Pavlovian-type response to other stimuli (e.g. anticipation of feeding)?
- 5) Age?
- 6) Individual?
- 7) Mass/volume relationship, dry weight, ratios of fecal material?
- 8) Individual components with identical controlled caloric counts?
- 9) Activity (energy use v. intake = metabolic budget)?
- 10) Weather variation (daily thermoregulation, environmental moisture)?

Perhaps most importantly, this study is another example of joint research between organizations benefiting both parties. In this project, Zupreem® gained access to the exotic animals they specialize in, but would not commonly encounter in laboratory settings. The partnership provided access to the desired animal (original formulated specifically for bears). The Zoo's goals in the project were to test the effect of inclusion of whole food items and the different pellet diets available, and to gain a tool to assess results reliably and objectively. The company provided the method and the training and experience to use it effectively. Furthermore, the project re-established a bountiful relationship, which will hopefully bear more fruit in the future.

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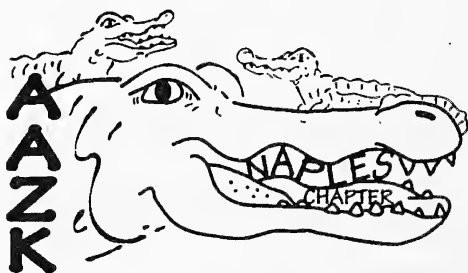
Chapter News Notes

Naples AAZK Chapter

We have made it through our first year! And we are stronger for it!! Fundraiser after fundraiser we finally have money to work with—and to give away!!

Our members are looking forward to “rewarding” organizations for all our hard work. Lapel pins and calendars were sold over the holidays—both were very successful. With those monies we were able to get the Naples Zoo’s first-ever silent auction off the ground.

“A Silent Night at the Zoo?” was held March 19th. We auctioned off over 140 items, welcomed guest speaker Ron Magill (from Miami MetroZoo) and enjoyed a wildly entertaining animal show. After all was said and done, we gave \$465 to Chimp Haven, Inc. and \$570 to Friends of the Harpy Eagle. We have not yet decided what to do with the remaining monies but with Bowling for Rhinos right around the corner, it’s likely the funds will be put to good use.



For our second attempt at BFR, we are inviting the community to join us. We raised \$2300 last year with “members-only bowling” and hope to better that this year with the public’s help!

Lastly, we have jumped on board with “Eco-Cell” to help collect old cell phones and put them to better use (i.e., NOT LANDFILL). Our collection drive kicks off May 2. We are proud

to “multi-task” with this project—fundraising for local conservation organizations as well as helping to protect more global environments.

Our summer looks busy, and we are up for the work!

--Stephanie Bolster, Chapter-Liaison
Naples AAZK Chapter, Naples, FL



Dallas AAZK Chapter

The Dallas AAZK Chapter is please to announce their new officers for 2005. They are:

President.....Alex Vasquez
Vice President...Megan Lumpkin
Secretary.....Sue Thompson
Treasurer.....Elana Kopel
Liaison.....Erica Malmberg

We’d also like to express our gratitude for a job well done to our 2004 officers and to all those who helped us make the National AAZK Conference so successful.

--Erica Malmberg, Chapter Liaison

What’s your AAZK Chapter been up to? Let us know about your successful fundraisers, guest speakers, conservation projects, new officers, new logos, etc. We want to hear from you!

**Send your Chapter News to the
AKF Editor at:**

akfeditor@zk.kscoxmail.com

Detroit Chapter AAZK

Detroit Zoo AAZK members continue to move forward with commitment and gusto on many of this year's initiatives. Detroit's BFR committee worked diligently this year to meet and possibly exceed last year's \$19,000.00 national record at our June 3rd BFR event. A strong focus was placed on publicity, with the addition of a Beanie® rhino gift for raising \$100.00 or more.

In early April, Detroit's elephants Winky and Wanda traveled crosscountry to PAWS Sanctuary in San Andres, CA. Winky and Wanda were accompanied by their keepers Patti Miles, Rick Wendt, and Mary Wulff; Margaret Whittaker (training consultant), vet Dr. Duncan and Associate Curator Harry Ward, on a trip that took approximately 72 hours. The journey was a complete success. Winky and Wanda are enjoying every aspect of their new home, lush grasses, herd companionship, vast space, a large pond, and warm weather.

Michelle Pratt, 2004 BFR high money raiser, gave a presentation on her amazing trip to Lewa Wildlife Conservancy. Seeing the animals in their natural habitat is always inspiring to keepers. Successful conservation efforts are imperative to the survival of the animals we care for.

Detroit AAZK continues to investigate fund-raising options to support keeper education and travel. Several keepers are looking forward to the upcoming AAZK National Conference. Our membership meeting attendance continues to increase, and new ideas and contributions surface at every meeting.

--Mary Wulff, Liaison



CHAPTER LOGOS

Does your Chapter have a new logo? Please keep us up-to-date if you change your Chapter logo. Also, new Chapters are encouraged to send in a copy of their logo as soon as they adopt one. Logos may also be sent as graphic file attachments (tiff or jpeg) to the email address listed below.

We will be producing another Chapter Logo Registry in 2005, so make certain the logo in our file is your most current one. When sending in logos, please include name of the artist/designer, date logo was adopted, and what, if any, significance is in the design - animals represented, etc.

New Elephant Publication Available **"Endangered Elephants - past present and future"**

The Proceedings of the International Symposium on Human-Elephant Relationships and Conflicts held in Sri Lanka in September 2003, are now available as a book entitled "Endangered Elephants - past present and future". This hard back book contains the papers presented at this symposium by the world's leading elephant authorities on topics ranging from captive elephant management, elephant genetics, conservation, biology, ecology to human-elephant conflict and mitigation. It is well illustrated. Copies of the book are available for sale at US \$25 plus postage. USA/Europe postage \$10. Please contact Jayantha Jayewardene at romaliji@eureka.lk or 615/32 Rajagiriya Gardens, Nawala Road, Rajagiriya, Sri Lanka to purchase a copy.

Legislative/Conservation Update

Compiled by Georgann Johnston
Legislative Advisor
Sacramento, CA



Ivory-Billed Woodpecker Rediscovered in Arkansas

Confirmation of the dramatic rediscovery of the ivory-billed woodpecker (*Campephilus principalis*) at the Cache River National wildlife Refuge in Arkansas was announced in April by the Cornell Lab of Ornithology, The Nature Conservancy, and other members of the Big Woods Conservation Partnership. The bird has been thought to be extinct in the United States for more than 60 years.

The announcement stated that the researchers had collected primary and secondary evidence of the bird's existence in the Cache River National Wildlife Refuge. The primary evidence consists of video footage, while the secondary evidence consists of seven eyewitness sightings and audio evidence of the ivory-billed woodpecker. In addition, recordings of the distinctive double rap of the bird are still under analysis. After conducting its own peer reviews of the evidence, the journal *Science* is now publishing these findings.

In response to the disclosure, the U.S. Interior Secretary Gale Norton and Agriculture Secretary Mike Johanns announced a multi-year, multi-million-dollar partnership effort to aid the rare bird's survival. "This is a rare second chance to preserve through cooperative conservation what was once thought lost forever," Norton said. "Decisive conservation action and continued progress through partnerships are now required. I will appoint the best talent in the U.S. Fish and Wildlife Service and local citizens to develop a Corridor of Hope Cooperative Conservation Plan to save the Ivory-billed woodpecker." The "Corridor of Hope" refers to the Big Woods of Arkansas, an area about 120 miles long and up to 20 miles wide in eastern Arkansas where the ivory-billed woodpecker has been sighted.

The Interior Department, along with the Department of Agriculture, has proposed that more than \$10 million in federal funds be committed to protect the bird. This amount would supplement \$10 million already committed to research and habitat protection efforts by private sector groups and citizens, an amount expected to grow once news of the rediscovery spreads. Federal funds will be used for research and monitoring, recovery planning and public education. In addition, the funds will be used to enhance law enforcement and conserve habitat through conservation easements, safe-harbor agreements and conservation reserves.

The Corridor of Hope and recovery teams have nine assignments. They will include developing plans for local citizens to participate in maintaining public use of the land while the bird's habitat is protected; providing necessary data to comply with ESA requirements; provide information to landowners on the voluntary conservation activities they can take to assist the recovery of the species; and develop a plan to allow for visitor access to the bird's habitat. *Source: USFWS Press Release 28 April 2005*

\$530 Million Plus to State Fish and Wildlife Agencies

The USFWS recently announced that state fish and wildlife agencies will share more than \$530 million in excise taxes paid by America's recreational shooters, hunters, anglers and boaters, to support fish and wildlife conservation and education programs. The agencies will use the money to support conservation programs such as fish and wildlife monitoring, habitat improvement, acquisition of land for habitat conservation and species protection, research, education, and other programs. The funds also will help pay for hunter safety, aquatic education and fish and wildlife-related recreation projects. The funds are apportioned by formula under two Federal Assistance programs. The wildlife restoration apportionment for 2005 totals more than \$235 million, with more than \$46

million going for hunter education and shooting range programs. The apportionment for sport fish restoration for 2005 totals nearly \$295 million. Wildlife restoration funds are made available to states based on land area (land plus inland waters, such as lakes and large rivers) and the number of hunting license holders in each state. Distribution of hunter education funds is based on the relative population of each state. Federal Assistance funds pay for up to 75 percent of the cost of each project while the states contribute at least 25 percent. *Source: USFWS Press Release 26 April 2005*

Norwegian Trophy Sealing Effort a Flop

The Norwegian government opened the 2005 sealing season to foreigners, anticipating a trophy hunting bonanza, but only 18 foreign hunters signed up for the program. On the day the season opened, protests were staged outside 22 Norwegian embassies worldwide. Pitching the hunt to tourists was also not popular with Norwegian tour promoters.

"It is completely unnecessary to provoke world opinion with something as marginal as tourist seal hunts," Destination Alesund head of travel Terje Devold told reporters. "If the media focus remains on the seal hunt, we will see it in our tourist statistics." *Source: Animal People News April 2005*

Official Information About Florida Panther to be Corrected by USFWS

The USFWS has accepted the recommendation of a three-member panel of senior Interior Department officials that found the agency did not move quickly enough to correct some scientific information related to Florida panthers (*Puma concolor coryi*) and disseminated some uncorrected documents. At the same time, the panel made clear it believes "the Service played a major role in identifying these scientific concerns and supporting their investigation" by establishing a Florida Panther sub-team of the Multi-Species Ecosystem Recovery Implementation Team, and by working with the State of Florida to convene a Scientific Review Team to address questions raised about some of the research.

"The Service used panther information that had been scientifically peer reviewed, but we and others engaged in panther science and conservation identified significant limitations in its methodology and conclusions," said Service Deputy Director Marshall Jones. "This is a common outcome of the scientific process. However, we should have moved more quickly to incorporate this evolving knowledge into some planning documents and biological opinions, an oversight that we regret and are working to correct."

The Florida panther's ecology is one that involves a number of complex and competing viewpoints. The USFWS asserts it has been working with the state and numerous scientists to constantly improve the science used in panther conservation efforts. Problems with the uncorrected information includes misstatements regarding panther habitat and a failure to correct four biological options given to the Corps of Engineers related to panther habitat conservation.

Jones said the Service will take numerous corrective actions including updating panther-related provisions of the Multi-Species Recovery Plan, incorporating appropriate recommendations of the Science Review Team, further disseminate the draft Landscape Conservation Strategy Report, and include updated/corrected information on the Service's website. *Source: USFWS Press Release 21 March 2005*

Guidelines to Address Bird Strikes and Electrocutions Released

The USFWS, in partnership with the Avian Power Line Interaction Committee (APLIC) recently released voluntary guidelines designed to help electrical utilities protect and conserve migratory birds. Working with the guidelines, a utility can use the latest technology and science to tailor a voluntary Avian Protection Plan that meets specific utility needs at its facilities.

"The voluntary guidelines for protecting birds from electrocution and collisions with power lines will improve safeguards for migratory birds," said Acting Service Director Matt Hogan. "We value our partnership with APLIC and the electric utility industry, and encourage electric power

companies to take advantage of the new guidelines.” An Avian Protection Plan is utility-specific and is designed to reduce avian and operational risks that result from avian interactions with electric utility facilities.

Electrocutions are a particular threat to birds with large wingspans, such as eagles, hawks, and owls - all species protected under the Migratory Bird Treaty Act. Wire strikes are a problem for many different bird species. Birds also can cause power outages and fires, resulting in increased costs and inconvenience for electric utilities and their customers.

The Service and APLIC have a long history of working together on avian power line issues. In 1983, an *ad hoc* group began addressing whooping crane collisions with power lines in the Rocky Mountains. APLIC was officially formed in 1989 as a partnership involving the Service, the National Audubon Society, and 10 electric utilities. Today APLIC members include representatives from the Edison Electric Institute (representing the Nation’s investor-owned electric utilities), the National Rural Electric Cooperative Association (which represents nearly 1,000 consumer-owned electric utilities), 23 individual electric utilities, two Federal utility agencies, the Electric Power Research Institute, and the Rural Utilities Service. *Source: USFWS Press Release 18 April 2005*

Marwell Descendent Born in Swaziland

This little roan antelope calf was born recently in Africa. She is the first calf born to a small group of roan antelope (*Hippotragus equinus*) which came from Marwell Zoological Park, near Winchester (UK). She is part of an ambitious “Back to Africa” project, a charitable trust based in South Africa. Its purpose is to supplement and restore populations of animals which, for various reasons, have declined or disappeared from their former African ranges.

Marwell has one of Europe’s largest collections of African hoofed animals including roan antelope. Roan antelope are imposing animals, predominantly tawny in color with black and white facial markings. Their horns are regarded as a prized hunting trophy, a factor which has contributed to their decline in numbers.

Two groups of Marwell-bred roan antelope have travelled to the Mlilwane Wildlife Reserve in Swaziland - a country where the species is extinct in the wild. The first group went in November 2003 (three female and one male) and the second (four females and one male) in November 2004.

These animal returns are not “re-introductions” in the strict sense of the word because there are many stages before animals can be established as truly wild populations. However, the co-operation between Back to Africa and Marwell is an important part of the process and the birth of a calf shows that animals bred in the paddocks of Marwell settle successfully in the heat of African scrubland and low forests. *Source: ZooNewsDigest #350 April 2005*

Wholphin Born at Hawaii’s Sea Life Park

The only whale-dolphin mix in captivity has given birth to a female calf, officials at Sea Life Park Hawaii announced in mid-April. Kekaimalu, a mix of a false killer whale and an Atlantic bottlenose dolphin, gave birth on 23 December, but the announcement was delayed because of recent changes in ownership and operations at the park.

The young as-yet unnamed wholphin is one-fourth false killer whale and three-fourths Atlantic bottlenose dolphin. Her slick skin is an even blend of a dolphin’s light gray and the black coloring of a false killer whale. She is jumbo-sized compared with purebred dolphins, and is already the size of a one-year-old bottlenose. Although false killer whales and Atlantic bottlenose dolphins are different species, they are classified within the same family by scientists.

“They are not that far apart in terms of taxonomy,” said Louis Herman, a leading expert in the study of marine mammals. There have been reports of wholphins in the wild, he said.

Kekaimalu, whose name means "from the peaceful ocean," was born 19 years ago after a surprise coupling between a 14-foot, 2,000-pound false killer whale and a 6-foot, 400-pound dolphin. She has given birth to two other calves. One lived for nine years and the other, born when Kekaimalu was very young, died a few days after birth. Park researchers suspect the wholphin's father is a 8-foot long Atlantic bottlenose dolphin named Mikioi. *Source: Excerpted from AP/CNN.com release April 15, 2005*

Captive Chimp's Release Declared a Success

The largest ever release of captive chimpanzees (*Pan troglodytes*) into the wild has been declared a success. Five of the 37 chimps released in the Republic of the Congo have bred in the wild, and only five have been confirmed dead.

The chimps were all wild-born animals that had been confiscated from markets or from private owners who no longer wanted them as pets. They were initially transported to islands away from poachers and predators by the charity Ecological Habitat and Freedom of Primates/Congo. Then between 1996 and 2001 they were released into the Conkouati-Douli National Park on the border with Gabon. The animals were fitted with radio collars which allowed the 23 animals that stayed in the release area to be tracked. Most of the nine that left the area probably traveled off with groups of wild chimps. The biggest success was that four females bred, producing five offspring in total. A released male named Mekoutou also bred successfully in the wild with a released female named Choupette.

But looking after the chimps was expensive: the cost of field assistants, the radio collars and veterinary care amounted to about \$5200 per chimp per year. Conservationists critical of the project, said the money could have been better spent. Proponents of the program said that the increase in public awareness among the local people would go a long way towards protecting the released animals. *Source: New Scientist Print Edition 28 February 2005*

Improved Elephant Breeding Critical to Species' Captive Survival

American zoos and the International Elephant Foundation (IEF) are trying to make the in-house breeding of elephants more successful to ensure that the species will still be around for future zoo visitors to see. IEF is awarding grants totaling about \$100,000 a year to promote research and conservation programs. It has signed an agreement with the American Zoo and Aquarium Association (AZA) to work more closely on elephant breeding efforts.

Overseers of an international species survival program for elephants said they are coordinating research and preservation efforts to ensure that at least some American zoos will still have elephants in the next 20 to 30 years. U.S. zoos must sharply increase the number of elephants born in captivity to offset an aging population, John Dinon, director of animal conservation programs at the Cincinnati Zoo said. If the births at U.S. zoos aren't sharply increased, "There's not going to be elephants in zoos in North America any more," he said.

The expense and time involved in importing elephants, the advancing age of the current population in American zoos, and a naggingly high mortality rate for infant elephants emphasizes the need for improved breeding, zoo officials said. In recent years, 30-40% of calves born have not survived their first year, although gains have been made with improvements in knowledge and technology, officials said. Improvements in artificial insemination techniques and better monitoring of the ovulation cycles of female elephants could help boost the survival rate of infant elephants.

There have been successes at some zoos such as Fort Worth that has 1.5 elephants, including a successful birth in captivity six years ago. The Oregon Zoo in Portland has had 27 elephant births since 1962, the year of the first Asian elephant born in the Northern Hemisphere in 44 years. That elephant, named Packy, is now 43. *Source: Excerpted from Ohio News Network May 2, 2005*

Institutions wishing to advertise employment opportunities are asked to send pertinent data by the 10th of each month to: Opportunity Knocks/AKF, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054. Please include closing date for positions available, and when setting these dates keep in mind that because of bulk-mail, most readers do not receive their AKF until the middle of the month or later. There is no charge for this service and fax or e-mail listings of positions which become available close to deadline are accepted. Our Fax is (785) 273-1980; e-mail: akfeditor@zk.kscxmail.com< Listing must be sent as MS Word attachment. To post a position on the AAZK website, have listing to email address above by the 25th of the month for posting on the first day of the following month. We are no longer located at the Topeka Zoo, so please note new address to avoid delays in processing.

Lead Animal Keeper (Full-time/Permanent) - Oakland Zoo, Oakland, CA

To apply: send resumé, cover letter and three (3) work references to: Colleen Kinzley, General Curator, Oakland Zoo, P.O. Box 5238, Oakland, CA 94605; Fax: 510-636-9619; Email: colleen@oaklandzoo.org<
NEW CLOSING DATE: 27 June 2005. This is a salaried position. **Responsibilities:** The Lead Keeper will spend the majority of his/her time in supervisory and administrative tasks. The remainder of the time will be spent working on the Strings. The Lead Keeper will be responsible for designated work areas in the Department. Staff within those areas will report directly to the Lead Keeper. The Lead Keeper will perform job performance evaluations with staff in his/her work section. The Lead Keeper will be available to assist in procedures and projects, answer questions, facilitate maintenance or grounds work, etc. The Lead Keeper will cover these areas as a floater as necessary. The Lead Keeper is also responsible for various administrative and future planning tasks as assigned by the curator. The Lead Keeper should be capable of taking charge of the Department and addressing all potential problems and emergencies. **Job Requirements:** 1) Minimum of five (5) years experience as an animal keeper in an AZA-accredited zoo; 2) Valid drivers license; 3) Willingness to work unusual hours, weekends and holidays; and 4) Good physical condition; able to lift a minimum of 50 lbs. and move a minimum of 120 lbs. **Experience and Qualities Preferred:** 1) Bachelors degree in zoology, biology or a related field; 2) Thorough understanding of behavioral training theory and practical application; 3) Thorough knowledge of capture and restraint techniques; 4) Specialized knowledge and experience with birds, reptiles, and/or invertebrates; 5) Thorough understanding of safety procedures used with captive wildlife; 6) Computer proficiency; 7) Good communication and presentation skills; and 8) Supervisory experience. **Salary and Benefits:** Starting salary \$33,280 annually for full-time, exempt position. Full benefits plus two weeks vacation.

Assistant Bird Handler (Seasonal) - Deer Mountain Tribal Hatchery and Eagle Center, Ketchikan, AK
Fax resumé to: Deer Mountain Eagle Center, ATTN: Steve Sarro, Curator, 1158 Salmon Road Ketchikan, AK 99901; (907) 228-5547 office; (907) 228-5548 fax. Please include three (3) work-related references that are able to confirm you bird handling, natural history and public speaking skills. The Deer Mountain Eagle Center is looking for a qualified bird handler for the 2005 summer season (May through September). This position will supplement the Bird Staff to provide educational lectures to the visitors and provide daily care for the birds. **Required Skills:** 1) Proven ability to handle birds (raptors, owls, corvids) on the fist; 2) Experience with eagles preferred; 3) Ability to speak to audiences; 4) Working knowledge of bird natural history; 5) Ability to be flexible in weekly scheduling of presentations; and 6) Good customer relations abilities. **Terms:** Round-trip ticket to Ketchikan provided; Room at Center provided; \$7.15/hour for a 40-hour work week.

More Zoo vacancies can be seen by visiting:

American Zoo and Aquarium Association - Job Listings
<http://www.aza.org/JobListings/>

American Association of Zoo Keepers' - Opportunity Knocks
http://www.aazk.org/aazknew/animalKeepersForum/opportunity_knocks.asp

European Association of Zoos and Aquaria - Vacancies
<http://www.eaza.net>

Australasian Society of Zoo Keeping (ASZK)
<http://www.aszk.org.au/Zoo%20Positions%20Vacant.htm>

Berufsverband der Zootierpfleger e.V
<http://www.zootierpflege.de/stellen/stellenzooseiten/STzoowebsites.html>

Zoo Vets, Technicians and interns
http://www.aazv.org/job_openings.htm

Bird Jobs in the Field
<http://www.birdingonthe.net/maillinglists/BJOB.html>

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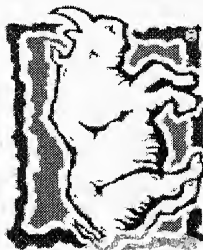
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Mail this application to: AAZK Administrative Offices, 3601 S.W. 29th, Suite 133 Topeka, KS 66614-2054. Make checks/money orders payable to AAZK, Inc. Must be in U. S. FUNDS ONLY. Membership includes a subscription to *Animal Keepers' Forum*. The membership card is good for free admission to many zoos and aquariums in the U.S. and Canada.

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